

The CONSTRUCTOR



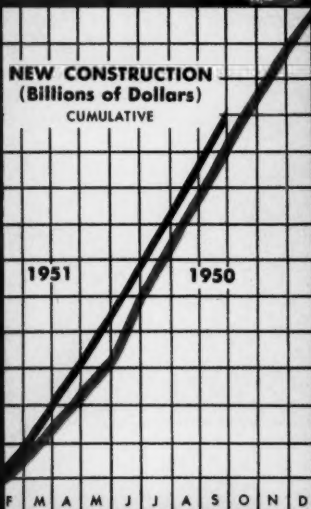
Volume XXXIII

OCTOBER 1951

Number 10



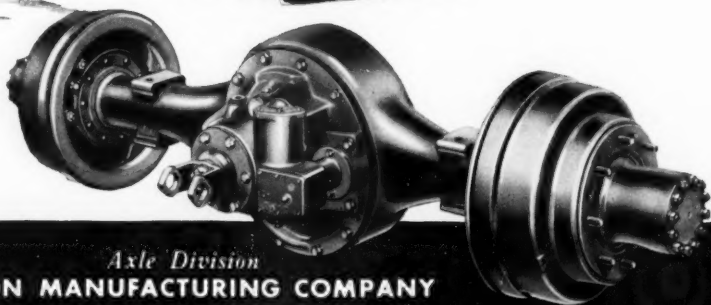
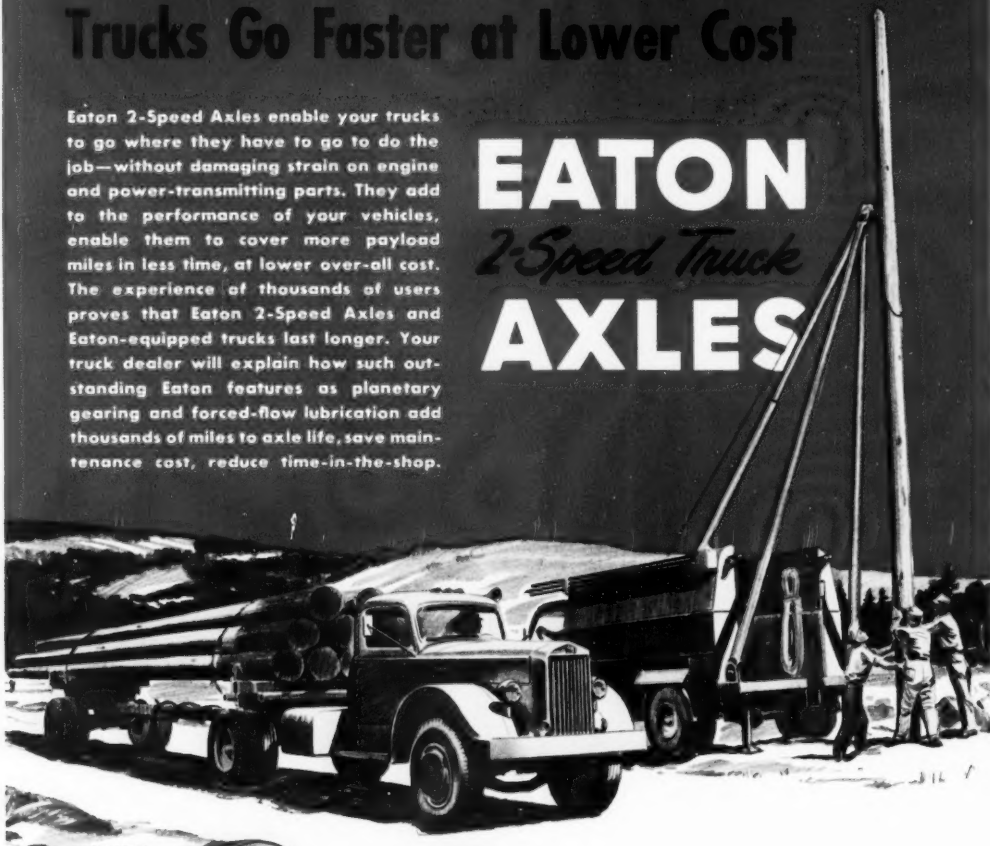
NEW CONSTRUCTION
(Billions of Dollars)
CUMULATIVE



On the Highway or Off— Trucks Go Faster at Lower Cost

Eaton 2-Speed Axles enable your trucks to go where they have to go to do the job—without damaging strain on engine and power-transmitting parts. They add to the performance of your vehicles, enable them to cover more payload miles in less time, at lower over-all cost. The experience of thousands of users proves that Eaton 2-Speed Axles and Eaton-equipped trucks last longer. Your truck dealer will explain how such outstanding Eaton features as planetary gearing and forced-flow lubrication add thousands of miles to axle life, save maintenance cost, reduce time-in-the-shop.

EATON *2-Speed Truck* AXLES



Axle Division

EATON MANUFACTURING COMPANY
CLEVELAND, OHIO



PRODUCTS: SODIUM COOLED, POPPET, AND FREE VALVES • TAPPETS • HYDRAULIC VALVE LIFTERS • VALVE SEAT INSERTS • JET ENGINE PARTS • ROTOR PUMPS • MOTOR TRUCK AXLES • PERMANENT MOLD GRAY IRON CASTINGS • HEATER-DEFROSTER UNITS • SNAP RINGS • SPRINGTITES • SPRING WASHERS • COLD DRAWN STEEL • STAMPINGS • LEAF AND COIL SPRINGS • DYNAMATIC DRIVES, BRAKES, DYNAMOMETERS



This advertisement appeared in leading newspapers September 12. It is the first of a series in behalf of a modern highway system.

We Must Face the Highway Crisis Now —there is only one real cure!

ONE of the greatest home-front threats to the welfare of every American is the congestion on our highways today.

It is not only a menace that costs thousands of lives in needless accidents and millions of dollars in wasted time every year—it is a peril to national security!

Without motor transportation the nation would stagnate. It has become the lifeblood of America's economy. The highways are its arteries—and they are hardening fast!

Remember these facts

Motor transport now carries 80% of all interstate passenger traffic — takes more than 50% of all workers to their jobs.

It speeds 90% of all foods to market—hauls 75% of all general freight.

It is the swift plant-to-plant conveyor of raw materials, parts and subassemblies that keeps America's mass-production lines going—that makes America's unprecedented prosperity possible.

Roads are the bottleneck

To keep America moving today requires the daily use of almost FIFTY MILLION motor cars, trucks and buses — more motor vehicles than all the rest of the world possesses!

Yet this vital transport system is now jam-packed into an obsolete highway system—most of it designed *pre-war to comfortably accommodate less than half today's vehicular mileage!*

And motor registrations have been soaring since the war at the rate of 3.7 million per year.

We should have action NOW!

We cannot cut this Gordian knot by restrictive laws. The crux of the problem is not the number of cars or the size of trucks—it is *too few modern roads!*

To keep our nation mobile, we must start building a new national highway system now, designed for modern traffic needs and speeds.

Such a modern road system is essential to our prosperity and vital to our defense in this atomic age. And we have the world's most efficient road-building industry equipped to construct it in less time than ever possible before.

The time has come when we must do something about better roads besides talk. The demand for action must come from everyone who uses the highways—and that's just about everybody.

B. M. Litchfield

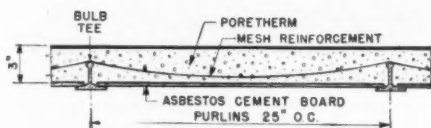
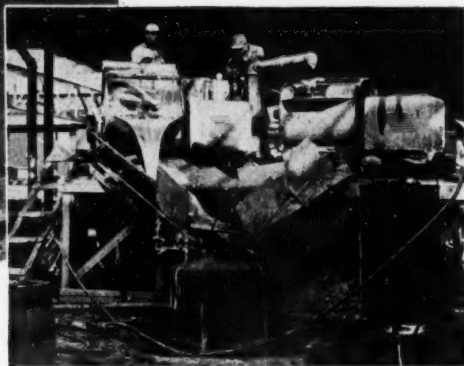
Chairman of the Board
THE GOODYEAR TIRE & RUBBER COMPANY, INC.

GOOD YEAR
THE GREATEST NAME IN RUBBER

3-Inch 'Incor' Icing ON A 1½-ACRE CAKE



**'INCOR' SOAP-FROTHED SLURRY
USED IN LIGHTWEIGHT,
INSULATING ROOF-DECK**



Owner: **HENRY PAPE, INC.**, Warehouse, Garage & Office Building, Glendale, L. I.

Architect: **WALTER MONROE CORY**, New York

General Contractor: **W. J. BARNEY CORPORATION**, New York

Roof Contractor: **PORETE MANUFACTURING COMPANY**, North Arlington, N. J.

'Incor', 4400 bags: **JAMAICA PARAGON PLASTER CORP.**, Jamaica, L. I.

● Here is a roof fill that fills the bill—economical, lightweight, fireproof, high insulating value.

On this well-designed building, the 63,000 sq. ft. of Poretherm roof-deck consists of ¼" asbestos-cement sheets, supported on lower flanges of sub-purlins, and a fill of 3" poured-in-place, soap-frothed 'Incor' slurry—6" over refrigerated area.

The concrete on hardening bonds to the asbestos-cement sheets, providing ample strengths for safe working loads. Insulating value of 3" slab is equal to 1½" cork; weight, 10.5 lb. per sq. ft.

For this roof fill, slow-moving mixer blades fold a froth of liquid soap, water and air into the 'Incor'* slurry, to a smooth, even consistency. Then the mix is chuted into a pneumatic dispenser, kept in continuous operation by two mixers.

'INCOR' 24-HOUR CEMENT provides greater strength in less time, permits workmen to get on the roof sooner, thereby speeding completion. Another example of know-how, sparked by ingenuity, taking full advantage of dependable 'Incor' performance.

*Reg. U. S. Pat. Off.



LONE STAR CEMENTS COVER
THE ENTIRE CONSTRUCTION FIELD

LONE STAR CEMENT CORPORATION

Offices: ABILENE, TEX. • ALBANY, N. Y. • BETHLEHEM, PA. • BIRMINGHAM
BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS
KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK
PHILADELPHIA • RICHMOND • ST. LOUIS • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 17 MODERN MILLS, 125,000,000 SACKS ANNUAL CAPACITY

The CONSTRUCTOR

CONTENTS

BUILDINGS • HIGHWAYS • AIRPORTS



RAILROADS • PUBLIC WORKS

GENERAL

Face of Construction Changes under Total Controls Plan	21
If You Can't Use It, Scrap It	21
Engineers Will Be Scarce for 10 Years	22
Alternate Designs Allowed	22
Equipment Production Delay	22

NATIONAL ASSOCIATION

Industry's Controls Problems Aired at A.G.C. Board Meeting	25
Maxon Cites Need for Free Exchange of Information	28
Horner and Street Nominated for 1952 A.G.C. Offices	29
A.S.C.E. Plans Centennial Celebration	29

LEGISLATION

Legislative Trends Reviewed by A.G.C.	31
Big Military Construction Program Slated	31

LABOR RELATIONS

A.G.C. Boards Review Labor Problems	33
-------------------------------------	----

BUILDING

Builders Tackle Problems at A.G.C. Meet	37
DPA Pushes Steel Conservation Program	37
Increasing Apprentice Enrollment Stressed	38

HEAVY • RAILROAD

Heavy Contractors Point Up Problems	43
Davis Dam Near Completion	43

HIGHWAYS • AIRPORTS

Highway Officials Hit NPA Steel Cut	47
Highway Contractors' Board Session Lively	47

EXECUTIVE DEPARTMENT

H. E. FOREMAN <i>Editor</i>	JOHN C. HAYES <i>Legal Adviser</i>	JOHN B. SWEM <i>Assistant Treasurer</i>
--------------------------------	---------------------------------------	--

BOARD OF DIRECTORS

GEORGE B. WALBRIDGE <i>President</i>	WILLIAM MUIRHEAD <i>Secretary-Treasurer</i>
H. E. FOREMAN <i>Vice-President</i>	G. W. MAXON <i>Director</i>
	B. L. KNOWLES <i>Director</i>

NATIONAL DEFENSE

Detroit Unit Ends Tough Field Training	51
--	----

INDUSTRY RELATIONS

Producers' Council, A.G.C. Begin Cooperative Meetings	55
A.S.C.E.-A.G.C. Joint Committee Meets in Chicago	55

RESEARCH • METHODS

New Techniques Disclosed at Prestressed Concrete Parley	56
---	----

CHAPTERS • BRANCHES

Chapter Executives' Problems Multiplying	61
Chapter and Branch Annual Meeting Dates	62

ACCIDENT PREVENTION

A.G.C. Emphasizes Accident Prevention	67
Severity Rate Increases, Frequency Drops	68

ALSO IN THIS ISSUE

News of the Month	5
Constructographs	7, 9, 11
Consumers' Price Index	15
Sidelights for Contractors	John C. Hayes 17
Editorials	19
A.G.C. Forms and Reports	65
New Equipment and Materials	70
Advertisers' Products	75
Index of Advertisers	79

EDITORIAL DEPARTMENT

WILLIAM E. WOODRUFF <i>Managing Editor</i>	WILLIAM G. DOOLY, JR. <i>News Editor</i>
---	---

BUSINESS DEPARTMENT

M. S. BECK <i>Business Manager</i>	GENEVIEVE MORRIS <i>Assistant</i>
---------------------------------------	--------------------------------------

COVER

This first picture of Montana's newest lake shows the towering blocks of Hungry Horse Dam mirrored in the rising reservoir. One million acre-feet of water will be captured behind the huge multiple-purpose Bureau of Reclamation dam during the 1952 spring run-off, and by next June the Hungry Horse Reservoir will be up to the present level of the highest blocks in the dam. The new lake began backing up behind the dam late in September when the 36-foot diameter diversion tunnel was closed. Photo taken by Bureau of Reclamation.

The Official Publication of The Associated General Contractors of America, Inc.

Published monthly. Editorial and Executive Office, Munsey Building, Washington 4, D. C. Subscription price \$5.00 per year. 40¢ per copy (July \$2.00). Re-entered as second class matter June 10, 1949, at the Postoffice at Washington, D. C., under the Act of March 4, 1879. Copyright 1951 by The Constructor, Inc.

C.I.T. CORPORATION
Industrial Financing

ONE PARK AVENUE, NEW YORK 10, N. Y.

G. D. MADDOCK
PRESIDENT

October, 1951

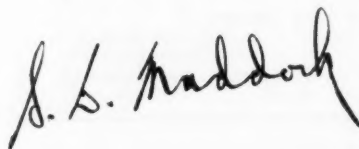
Dear Mr. Contractor:

There hasn't been a single month this year that we haven't made substantial loans to substantial contractors in order for them to increase or replenish their working capital.

The funds have been advanced either to purchase new equipment needed for jobs or against the security of equipment already owned by the contractor. In either case, he was put in funds without which he couldn't get his jobs done.

Since we know contractors' programs and are thoroughly familiar with the financial set up needed by contractors to accomplish the best results, we are able to act quickly on all loan applications. All of our offices listed below are available to you and have a field staff that will work with you.

Yours truly,



One Park Avenue
NEW YORK

221 N. LaSalle St.
CHICAGO

1007 Preston Ave.
HOUSTON

416 W. 8th St.
LOS ANGELES

750 Leader Building
CLEVELAND

660 Market St.
SAN FRANCISCO

66 Luckie St. N. W.
ATLANTA

A.G.C. Midyear Board Meeting in Chicago was attended by more than 300 from throughout country and Alaska who reviewed and approved program of the association, now strongest in history, with membership exceeding 6,000. General contractors recognized responsibility to study effects of government control policies and to recommend any necessary improvements to attain essential government objectives and maintain industry's productive capacity and efficiency. (Meeting report begins on Page 25)

Officers for 1952 nominated by A.G.C. Boards are Arthur S. Horner, of highway-heavy firm A. S. Horner Construction Co., Denver, for president, and C. P. Street, of building firm McDevitt & Street Co., Charlotte, N. C., for vice president. (Page 29)

As Controlled Materials Plan went into full effect this month, reports increased from various parts of country that many types of projects were being delayed by steel shortages. Slowdown in highway and school construction started immediate repercussions in Congress. Government controls officials say CMP cannot be expected to operate smoothly for construction in this first quarter, that shortages will increase during rest of 1951, possibly continue acute during most of 1952. (Page 21)

Inadequate steel allotments for highways were driven into open as Virginia Congressman Fugate introduced resolution calling on Defense Production Administration and National Production Authority to review their allocation procedures. Earlier, case for more steel for highways was presented to a Senate subcommittee on roads by Public Roads Commissioner Thomas H. MacDonald and American Association of State Highway Officials President J. A. Anderson. (Page 47)

Deferment of many school projects will be necessary because of shortages of steel and other critical materials, Office of Education reports, noting that the great majority of applications for new school and library construction during this quarter have been denied, and a substantial number of projects under way will not receive allocations.

To help loosen steel situation, government is pressing drive for more scrap throughout the country, directed toward "purchased" or "market" scrap which the industry buys from outside sources. As capacity increases, requirements for this important item also increase. (Page 21)

A steel conservation program in construction is being pushed by Defense Production Administration "to allow for more construction in 1952 with the materials available." The agency has recommended use of seven design standards considered acceptable to most engineers, architects, building officials and municipalities. Seventeen federal agencies are adopting recommendations which Defense Mobilizer Wilson endorsed strongly, together with list of alternate materials. (Pages 37, 38)

Construction machinery production is sharply down, with the industry's stated requirements for 4th quarter allotments of steel, copper and aluminum reduced 25 to 30%.

Steel industry executives and mobilization officials met in Washington Sept. 27 to review steel production program. Noting that 4th quarter cuts in structural steel were applied to steel industry expansion as well as other expansion programs, federal officials indicated more materials and equipment would be made available to steel industry during 1952, with priority given to coke ovens, blast furnaces "and the other basic elements needed to alleviate the metallic shortage." Inadequate scrap was termed most important current problem of the industry.

The \$5,864 million global military construction authorization, largest in history, was signed by President Sept. 28, and a House military appropriations subcommittee continued day-long sessions to get necessary appropriations legislation to the floor. Nearly \$3.5 billion is authorized for Air Force, about \$1.5 billion for Army, and \$850 million for Navy. More military construction proposals due in January. (Page 31)

Canadian proposal to construct St. Lawrence seaway project alone is reviving efforts in Congress to ratify

1941 agreement for joint U. S.-Canadian development of the project which has been an item of controversy for 17 years. After conference with Prime Minister St. Laurent Sept. 28, President Truman put pressure on project by announcing he would support Canadian action "as second best if an early commencement on the joint development does not prove possible."

Tax legislation differences of \$1.7 billion were being ironed out early this month by a conference committee. The \$5.5 billion measure approved by Senate Sept. 28 compares with \$7.2 billion passed by House, both falling far short of the \$10.7 billion tax increase repeatedly asked by President and fought for bitterly by Administration supporters. Both measures carry heavy income levy increases for individuals and corporations, and new or additional excise taxes on cigarettes, beer, liquor, gasoline, automobiles.

\$40 million for community facilities and \$50 million for temporary public housing were requested for critical defense areas by President Truman under terms of Defense Housing and Community Facilities and Services Act of 1951.

Corps of Engineers has completed 90% of its 1951 program to rehabilitate Army posts, camps and stations. The \$113 million program to provide facilities for 745,000 men will be completed early in 1952.

Alternate design and construction proposals may be submitted with bids on certain types of Air Force buildings in competition with designs prepared by Corps of Engineers. Standard plans are being distributed to local builders' exchanges and similar organizations for information of contractors, designers and materials suppliers. (Page 22)

Record volume of new construction continued through September, with 9-month total estimated at \$22.4 billion, more than \$2 billion ahead of same period last year. Contract awards also were up in the period through August, but volume to be performed this quarter will depend largely on ability of contractors to obtain materials under CMP.

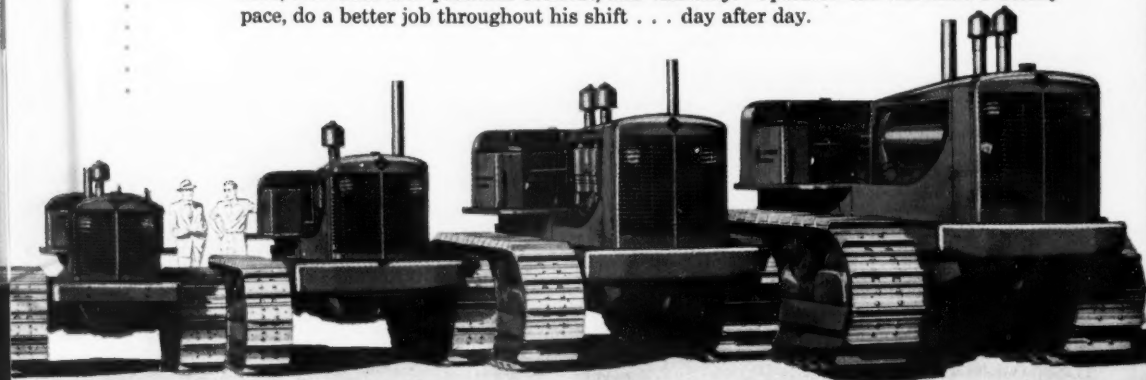
Here's what WE mean by The Newest, Finest Tractor Line on Earth!

DESIGNED FOR YOUR JOB These Allis-Chalmers tractors are new from the ground up . . . without compromise anywhere in design or material. They are built to give you outstanding performance on any job, with any equipment—drawn or mounted. Fully matched line of Allied equipment!

BUILT TO "TAKE IT" These are the finest tractors ever built . . . with ample capacity and strength in every part! You can depend on them to take the loads and jolts of today's jobs . . . because they are modern tractors built for the most gruelling operating conditions. They will more than measure up to your expectations!

EASY TO SERVICE Adjustments are easier . . . lubrication simplified and lube periods greatly extended. Mechanics say these tractors are the easiest to service and repair. This all adds up to less down time, more producing time . . . longer tractor life at less upkeep cost.

EASY TO OPERATE Conveniently located controls respond to the slightest effort . . . and are operated in the same familiar way—nothing tricky to "catch on to." There is new shifting ease, new seat and platform comfort, full visibility. Operator can maintain a steady pace, do a better job throughout his shift . . . day after day.



HD-5
40.26 drawbar hp.
11,250 lb.

HD-9
72 drawbar hp.
18,800 lb.

HD-15
109 drawbar hp.
27,850 lb.

HD-20
Hydraulic Torque Converter Drive
175 net engine hp. 41,000 lb.

YEARS AHEAD

Each of these new Allis-Chalmers crawlers gives you a new yardstick for rating tractors. Each sets new standards in its class for performance, strength, servicing, operation. Get the full story from your Allis-Chalmers dealer NOW on this — The Newest, Finest Tractor Line On Earth.



ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for September stands at Index Number 377, according to the A.G.C. Index. The cost figure for September 1950 was 369. The 1913 average equals 100.

WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 506 for September. One year ago the average stood at 491. The average of prices paid by contractors for basic construction materials for September stands at

Index Number 292. The average a year ago stood at 288. The 1913 average, again, equals 100.

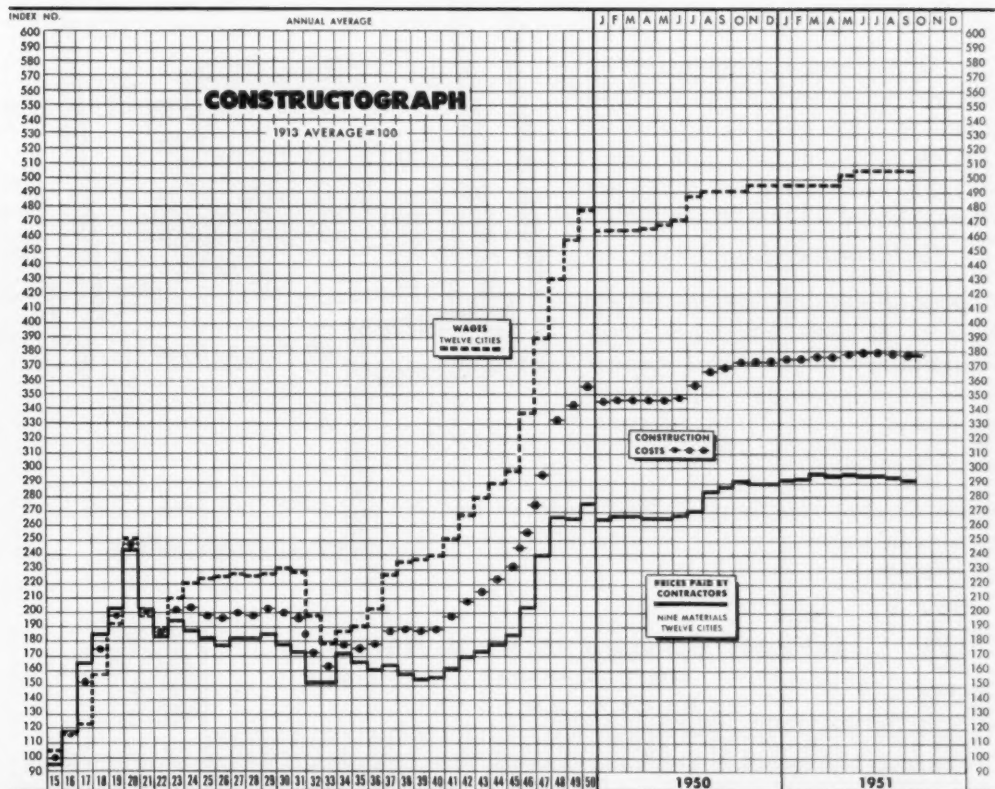
CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during August (Index Number 253, based on 1936-1938) is a decrease of 23 points from July, and a decrease of 68 points from August 1950.

REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 38 weeks of 1951 totaled 29,477,675 cars. For the same period in 1950, loadings amounted to 27,618,673 cars. This represents an increase of 6.7 per cent.

● Wage, Material Price and Construction Cost Trends



Back of Your New

GM Diesel Power

3 BIG SERVICE EXTRAS

We want every purchaser or prospective purchaser of one of our engines to know how his local GM Distributor and Dealer, with their factory-trained servicemen, stand back of the product. They in turn are backed by the knowledge that Detroit Diesel supports them strongly in their adherence to this policy.

1. Installation Inspection:

The GM Diesel serviceman inspects and checks the engine without cost to the owner; whenever possible this is done before the engine is put to work. He explains how to successfully operate the engine and the "preventive maintenance" necessary for best results in days to come.

2. Performance Inspection:

From thirty to sixty days after the engine has begun its job, another inspection is provided without charge. The GM Diesel serviceman makes any adjustments that may be required and tunes up the engine to its best performance.

3. Owner's Service Policy:

Besides the above inspections, GM Diesel owners are protected by the exceptional warranty mentioned in the owner's service policy.

Engine No. _____ Date _____

INSTALLATION INSPECTION
WARRANTY SERVICE

This engine dealer inspects and checks the engine without cost to the owner; whenever possible this is done before the engine is put to work. He explains how to successfully operate the engine and the "preventive maintenance" necessary for best results in days to come.

Sold By _____ NAME _____

ADDRESS _____ CITY _____ STATE _____

Smoking Dealer _____ NAME _____

ADDRESS _____ CITY _____ STATE _____

ACKNOWLEDGE INSPECTION _____

Date _____

OWNER SERVICE POLICY
Your G.M. Diesel Distributor

is pleased to have you as an Owner of a G.M. Diesel Engine Unit. As the Owner of a high quality product of proven superiority, you are entitled to receive the following special advantages:

- 1. INSTALLATION INSPECTION**
After installation and before operation, you are entitled to receive professional inspection and adjustment of your engine by a trained GM Diesel Serviceman. This service is provided without charge to the owner. The engine will be checked for proper operation and adjustment.
- 2. PERFORMANCE INSPECTION**
Your engine will receive a Performance Inspection by an authorized Detroit Diesel Dealer within 30 to 60 days after start of engine operation. This special service includes adjustment of the engine to its best performance. The engine will be checked for proper operation and adjustment.
- 3. INSTALLATION INSPECTION**
After installation and before operation, you are entitled to receive professional inspection and adjustment of your engine by a trained GM Diesel Serviceman. This service is provided without charge to the owner. The engine will be checked for proper operation and adjustment.
- 4. PREVENTIVE MAINTENANCE**
Regular maintenance is outlined in your Owner's Manual. Will reduce operating cost and improve life.

Engine No. _____ Date _____

PERFORMANCE INSPECTION
WARRANTY SERVICE

This engine dealer inspects and checks the engine without cost to the owner; whenever possible this is done before the engine is put to work. He explains how to successfully operate the engine and the "preventive maintenance" necessary for best results in days to come.

Sold By _____ NAME _____

ADDRESS _____ CITY _____ STATE _____

Smoking Dealer _____ NAME _____

ADDRESS _____ CITY _____ STATE _____

ACKNOWLEDGE INSPECTION _____

Date _____

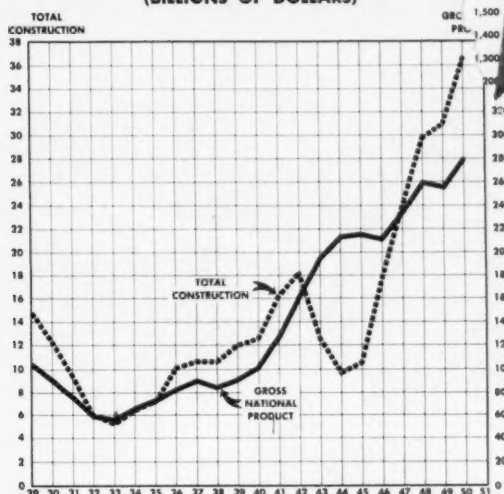


DETROIT DIESEL ENGINE DIVISION
SINGLE ENGINES...Up to 275 H.P. DETROIT 28, MICHIGAN MULTIPLE UNITS...Up to 800 H.P.
GENERAL MOTORS



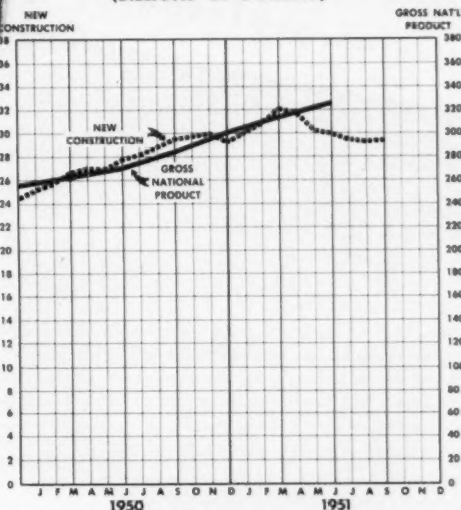
DIESEL BRAVN WITHOUT THE BULK

● TOTAL Construction compared with Gross National Product (BILLIONS OF DOLLARS)



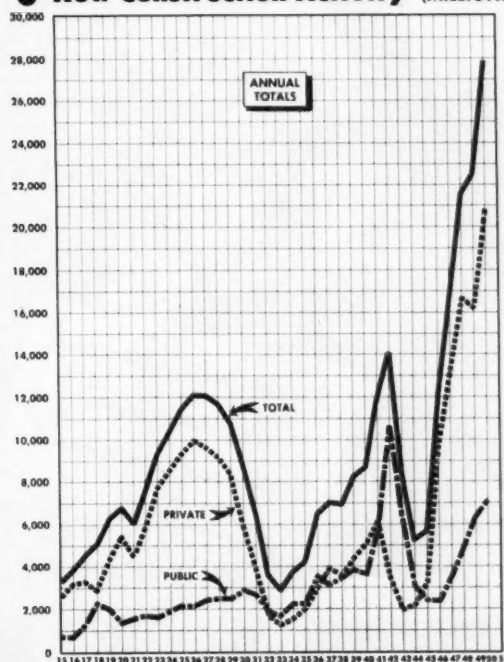
DATA SUPPLIED BY DEPT. OF COMMERCE

● NEW Construction compared with Gross National Product* (BILLIONS OF DOLLARS)

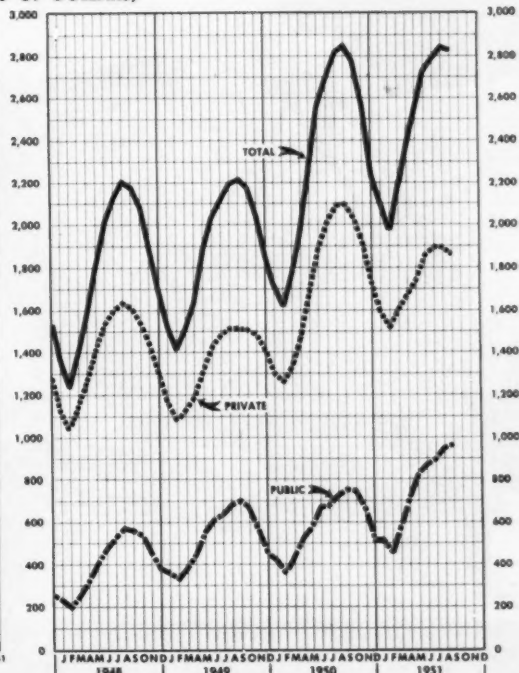


* Seasonally adjusted at an annual rate

● New Construction Activity (MILLIONS OF DOLLARS)



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR



REPEAT ORDERS
are the best indication
of preference!

TWENTY-SIX Northwests with an outfit like Winston Brothers Co. of Minneapolis, Minn. and Los Angeles, Calif. Not all one size—not all the same type—not all on the same class of work!

Winston Brothers have used Northwests for years on every class of work from easy digging to the hardest kind of rock excavation.

Winston Brothers know what Northwest performance is and Northwest performance and output are two of the reasons why Winston Brothers have placed twenty-five repeat orders over the years for Northwest equipment.

Northwest repeat orders from successful contractors are a guide you can't afford to overlook. They are proof positive of the kind of operation you want for profit.

You'll be surprised at how easy it is to plan to have a Northwest. Talk it over with a Northwest man. He'll be glad to give you full details.

NORTHWEST ENGINEERING CO.
192-S Field Building,
105 South LaSalle Street,
Chicago 3, Illinois

WINSTON BROTHERS CO.
Minneapolis, Minn. • Los Angeles, Calif.
buys their



*Successful Contractors
stay successful
with good equipment*

WEIGH ALL THE ADVANTAGES

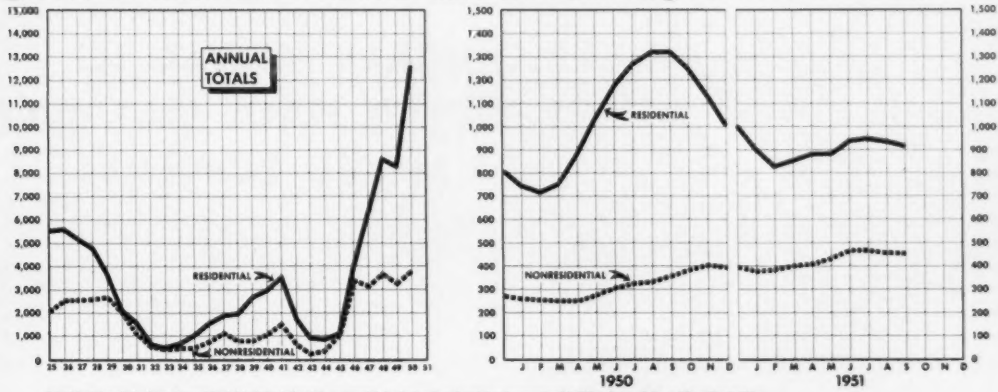
NORTHWEST

CRAWLER and TRUCK MOUNTED SHOVELS • CRANES • DRAGLINES • PULLSHOVELS

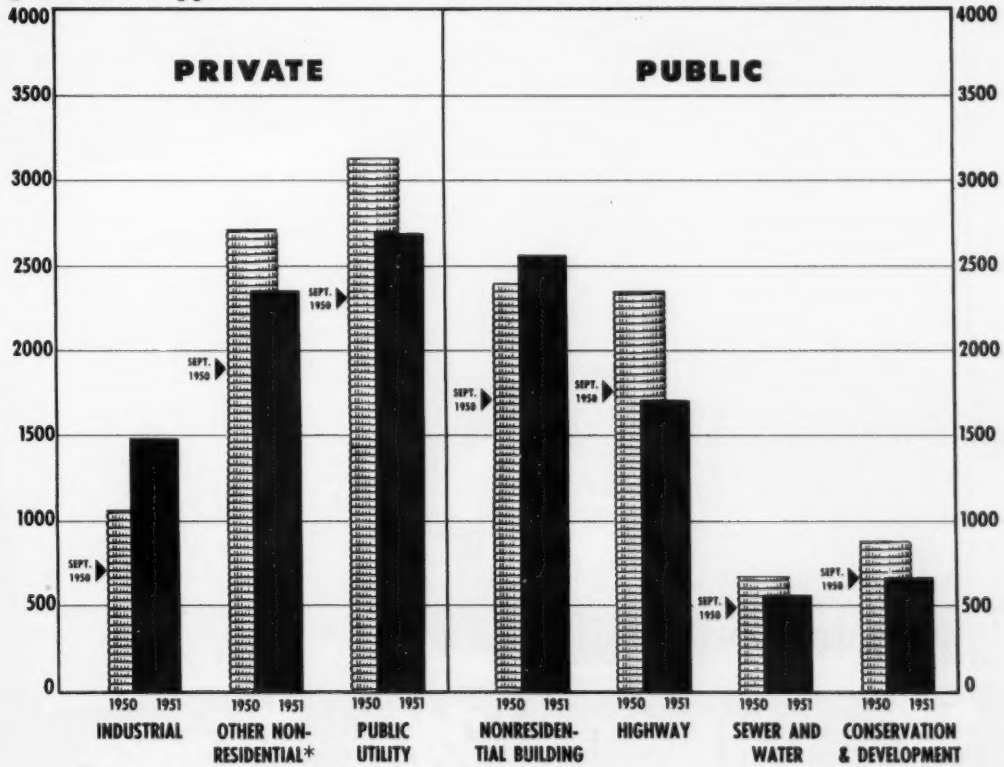


NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building* (MILLIONS OF DOLLARS)



● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1950 and 1951 VOLUME THROUGH SEPTEMBER



All welded...

PORTABLE

**QUICKLY MOVED TO
REDUCE HAUL DISTANCE
OF MIXED CONCRETE**



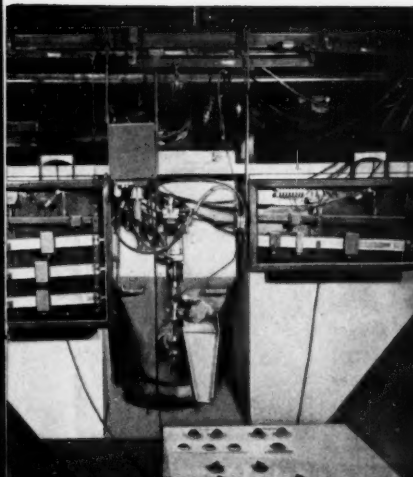
HERE is a profitable way to reduce haul distance of mixed concrete. Portability of this Johnson Transit-Mix Plant with its all-welded units is the lowest cost answer. Portable-section Tandem Bin minimizes field bolting . . . dismantling and erecting takes less than half the time required for moving a bolted plant. All sections are easy-handling width . . . 11' or under . . . yet, bins have big storage capacities. 7 sizes range from 55 to 210 cu. yds., can be arranged for 2, 3 or 4 aggregates. Central cement compartment holds 61 to 185 bbls. In addition to quick portability and big capacity, also check flexibility of this Tandem Bin Transit-Mix Plant. See your Johnson distributor, or write us, for more facts.

C. S. JOHNSON CO. CHAMPAIGN, ILL.
(Koehring Subsidiary)
C101



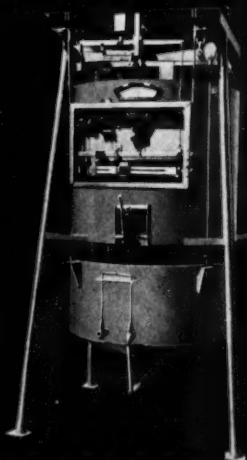
JOHNSON *Mix Plants*

BINS • BATCHERS • SILOS • ELEVATORS • CHARGERS • HOPPERS • CLAMSHELL, CONCRETE BUCKETS



Automatic, air ram operated CONCENTRIC BATCHER

This exclusive Johnson Concentric Aggregate-Cement Batcher, with central cement feed is fully automatic, air ram operated. Finger-tip panel (shown in foreground) controls air rams on aggregate and cement fill valves and discharge . . . assures extreme accuracy at top batching speeds for most efficient use of materials. Batcher also can be furnished with manual controls. Aggregates arranged concentrically around cement prevents "gumming". Cement is weighed on separate scale; aggregates are weighed on individual beam scales . . . or on accumulative dial scale.



WATER BATCHER improves concrete quality

Here's another handy auxiliary unit that can help increase your mix plant efficiency — Johnson Water Weigh-Batcher. Capacities: 120 gallons or 1,000 lbs. for batches up to 2 yards . . . and 240 gallons or 2,000 lbs. for batches up to 3 yards. Semi- and full-automatic types. They're fast-weighing . . . batching accuracy is not affected by changes in water temperatures.



15½ FT. PER MIN. with 310 Trenchliner®

With 45 digging feeds, Parsons big-capacity 310 Trenchliner digs 8 in. to 15½ ft. per minute, depending on depth, width of trench, soils. With single boom it digs 1½ to 4½ ft. wide at max. 17 ft. depth. Dual booms dig up to 6 ft. wide at depths to 11 ft. Spoil conveyor shifts through machine by power in less than 1 minute, belt direction is instantly reversible, to dump right or left. Shiftable boom digs within 15 inches of either side. Also ask your Parsons distributor about smaller size Trenchliners.

PARSONS Company, Newton, Iowa (Koehring Subsidiary)



DIG 24 FT. DEEP with Koehring 605 Hoe

As a heavy-duty hoe, this Koehring 1½-yard 605 digs 24 feet below crawlers, has fast swing, quick dump . . . readily converts to shovel, dragline, clamshell, or 36-ton crane. With every attachment, Koehring 37-inch power clutch does all the heavy work . . . cuts normal lever pull 90%, yet retains "feel" of load. Whenever you consider excavators or cranes, be sure to check on all Koehring heavy-duty sizes . . . lift capacities up to 79½ tons, dipper capacities up to 2½ yards. See your Koehring distributor.

KOEHRING Company, Milwaukee 16, Wisconsin

UNPRECEDENTED SPEED, EFFICIENCY, CONVENIENCE!

for

The

JACKSON VIBRATORY COMPACTOR

for

ASPHALT
HIGHWAY PATCHING
and WIDENING

•
WALKS and DRIVES

•
**WATER-BOUND
MACADAM BASES**

•
**RAILWAY STATION
PLATFORMS and
STREET CROSSINGS**

**GRANULAR
SOIL COMPACTION**

•
**IN CONCRETE FLOOR
SUB-BASES**

•
BRIDGE APPROACHES

•
EARTH-FILL DAMS

•
CLOSE TO FOOTINGS

•
IN TRENCHES

On dozens of jobs requiring the compaction of hot or cold asphalt, granular soils and crushed rock — the JACKSON VIBRATORY COMPACTOR offers tremendous opportunities for saving time and money . . . and the job is unsurpassed by equipment costing many times its price.

NOTE THESE SALIENT FEATURES:

DELIVERS UP TO 4500 1 3/4 -TON BLOWS PER MINUTE.

PROPELS ITSELF AS FAST AS 25 FT. PER MINUTE.

The operator merely guides it.

FIRMLY COMPACTS 15 TO 20 SQ. FT. PER MINUTE.

900 to 1200 sq. ft. per hr.

IN ASPHALT, CLOSELY APPROACHES THEORETICAL DENSITY OF MATERIAL USED.

IN PREPARATION OF WATER-BOUND MACADAM BASES it is easily the best means of securing maximum compaction of the stone in lifts of 10" where stone is well graded and does not exceed 4" in size.

IN CONSOLIDATING GRANULAR SOILS, THE COMPACTOR QUICKLY ACHIEVES 95-100% OF MAXIMUM LABORATORY DENSITY (A.A.S.H.O. T-99-38, CONE, VIBRATORY TABLE)

RUGGED, RELIABLE, ONLY ONE MOVING PART . . .

the shaft of the powerful vibratory motor. Maintenance is reduced to lubrication and ordinary care. The motor is of the type we have been building for more than 27 years. It operates on 110 volt, 3-phase, 60 cycle AC generated by a Jackson 2.5 KVA Power Plant mounted on the trailer. Power Plant will operate two VIBRATORY COMPACTORS, and since it produces both single and 3-phase 110 volt AC, may also be used to operate other power tools and lighting. It is equipped with permanent magnet generator which requires no adjustments or maintenance.

MANEUVERABILITY — PLUS!

With this COMPLETE, MOBILE, QUICK PICK-UP UNIT!

where frequent changes of location are required as in paving, patching operations, there is nothing that approaches the time-saving and convenience features of this complete unit. The VIBRATORY COMPACTOR walks itself right into the hydraulic lift. Folding-leverage action of front wheel standard makes attachment to, or detachment from ordinary auto hitch an easy one man job.

GET THE COMPLETE FACTS ON THE JACKSON VIBRATORY COMPACTOR, NOW!

See your Jackson Distributor, or drop us a line.



**JACKSON
VIBRATORS
INC.
LUDINGTON
MICHIGAN**



For Moderate Income Families in Large Cities

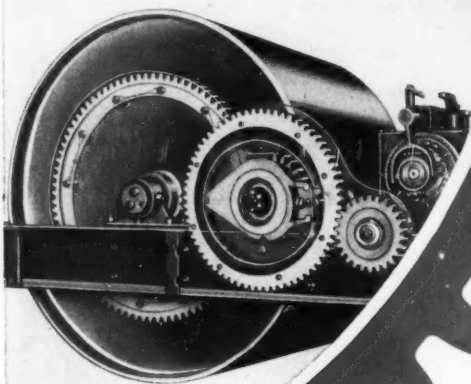
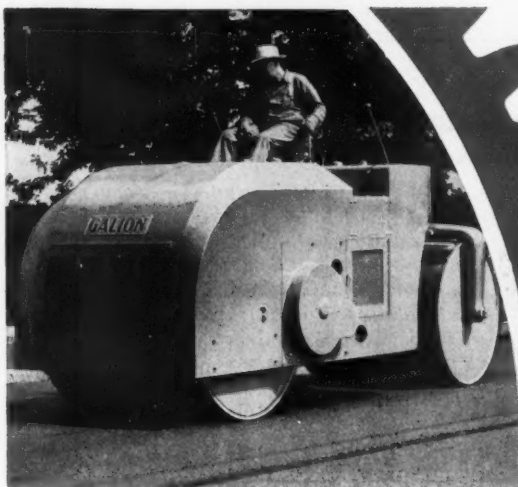
(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

This table indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from June 15, 1949 to August 15, 1951.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

The Bureau of Labor Statistics surveys 10 key cities every month and 24 other large cities quarterly. Prices are obtained on food, fuel, apparel, house furnishings and miscellaneous goods and services. Rental information is obtained quarterly only for all cities. The computations are based on the indexes for the years 1935-39, which are taken as the average of 100 points.

	1949			1950			1951		
	JUNE 15	JULY 15	AUG. 15	JUNE 15	JULY 15	AUG. 15	JUNE 15	JULY 15	AUG. 15
Average.....	169.6	168.5	168.8	170.2	172.5	173.0	185.2	185.5	185.5
Birmingham, Ala.....	172.1	171.0	171.1	171.1	175.7	177.7	189.8	189.2	190.5
Mobile, Ala.....	170.3	.....	.....	167.4	.....	.....	183.5	.....	.....
Los Angeles, Calif.....	168.7	167.2	166.8	166.7	168.2	169.1	186.1	186.7	186.6
San Francisco, Calif.....	173.7	.....	.....	173.1	.....	.....	188.4	.....	.....
Denver, Colo.....	.....	167.8	.....	.....	169.5	.....	.....	187.6	.....
Washington, D. C.....	.....	.....	166.0	.....	.....	168.9	.....	.....	180.8
Jacksonville, Fla.....	174.9	.....	.....	176.7	.....	.....	190.6	.....	.....
Atlanta, Ga.....	.....	.....	172.3	.....	.....	176.6	.....	.....	193.1
Savannah, Ga.....	.....	173.3	.....	.....	177.2	.....	.....	196.5	.....
Chicago, Ill.....	175.9	173.9	174.4	176.4	179.2	180.2	190.1	190.9	190.9
Indianapolis, Ind.....	.....	171.0	.....	.....	175.1	.....	.....	186.8	.....
New Orleans, La.....	.....	.....	173.8	.....	.....	178.7	.....	.....	188.9
Portland, Maine.....	165.8	.....	.....	164.5	.....	.....	176.4	.....	.....
Baltimore, Md.....	174.2	.....	.....	174.3	.....	.....	189.8	.....	.....
Boston, Mass.....	163.3	162.6	163.8	166.2	168.4	168.4	176.5	176.9	177.2
Detroit, Mich.....	172.0	170.4	169.9	174.2	176.2	175.1	188.3	188.6	188.5
Minneapolis, Minn.....	169.1	.....	.....	169.2	.....	.....	183.6	.....	.....
Kansas City, Mo.....	.....	162.1	.....	.....	166.1	.....	.....	179.7	.....
St. Louis, Mo.....	169.8	.....	.....	169.7	.....	.....	185.0	.....	.....
Manchester, N. H.....	.....	170.0	.....	.....	173.1	.....	.....	184.4	.....
Buffalo, N. Y.....	.....	169.4	.....	.....	172.0	.....	.....	185.5	.....
New York, N. Y.....	167.0	167.1	166.8	167.0	170.0	168.0	180.5	181.2	180.9
Cincinnati, Ohio.....	170.5	168.7	168.8	171.2	173.4	174.4	185.0	185.6	185.3
Cleveland, Ohio.....	.....	.....	171.6	.....	.....	176.0	.....	.....	189.1
Portland, Ore.....	.....	175.3	.....	.....	179.2	.....	.....	195.7	.....
Philadelphia, Pa.....	169.2	167.5	168.7	169.7	171.5	172.3	185.6	185.4	185.4
Pittsburgh, Pa.....	173.1	171.9	172.4	173.4	174.9	176.4	187.8	189.3	188.8
Scranton, Pa.....	.....	.....	169.5	.....	.....	171.8	.....	.....	182.5
Memphis, Tenn.....	173.5	.....	.....	169.9	.....	.....	187.8	.....	.....
Houston, Texas.....	170.5	170.4	170.4	173.1	175.1	177.9	192.3	192.6	193.0
Norfolk, Va.....	.....	.....	170.2	.....	.....	177.2	.....	.....	188.6
Richmond, Va.....	.....	164.4	.....	.....	168.1	.....	.....	181.3	.....
Seattle, Wash.....	.....	.....	170.8	.....	.....	175.2	.....	.....	190.9
Milwaukee, Wis.....	.....	.....	166.9	.....	.....	175.7	.....	.....	192.3



REMEMBER!
ROLLER
RELIABILITY —
depends largely
on its
FINAL DRIVE
mechanism

YOUR GOOD MECHANICAL JUDGMENT

will recognize the following features of Galion Tandem Roller Final Drive as sound, performance-proved, time-tested engineering.

- GALION FINAL DRIVE GEARS are all *Spur Gears*.
- GALION FINAL DRIVE is a 2 step gear reduction train thru 4 spur gears — a straight-line drive.
- GALION FINAL DRIVE greatest gear ratio is only 5 to 1.
- GALION FINAL DRIVE spur gears are special alloy steel, accurately machine cut and heat-treated. No ordinary, uncut, cast gears are used.
- GALION FINAL DRIVE has no small beveled pinion gear driving a large bevel ring gear on the roll.

IF YOU KNOW YOUR GEAR MECHANICS

you know that gradual reduction and low speeds (each gear with roller bearings) plus a straight-line spur gear train, give the least friction and consequently have the least gear wear. That is why Galion Final Drive gears stay *in line*, wear the least, and consequently last longest without adjustment or replacement.

TANDEM ROLLERS

THE GALION IRON WORKS & MFG. CO.

General and Export Offices — Galion, Ohio, U. S. A. Cable address: GALIONIRON, Galion, Ohio

Sidelights for Contractors

By John C. Hayes, Legal Adviser

Taxes

Division of Corporate Business.—In two cases recently decided, courts have recognized the validity of split-ups of corporate businesses and have refused to allocate the income of the new entity to the older one for federal income tax purposes, although substantial tax savings resulted from the division of operations.

In one of these cases, the Tax Court disagreed with an attempt by the Commissioner of Internal Revenue to ignore a partnership set up by the two principal stockholders in a bottling corporation. The evidence showed that it was the intention of the parties that the partnership should take over and conduct the bottling and distributing functions previously conducted by the corporation, but not the purchasing of syrup, and that the bottling business actually was conducted by the partnership.

In the second case, a district court held that the commissioner erred in disregarding the existence of a Mississippi corporation set up by a Tennessee corporation in the mill supply business to carry on operations formerly conducted in Mississippi by the parent corporation, where it appeared that the subsidiary was organized for business purposes rather than primarily for tax avoidance.

Sales to Controlled Corporation.—Where a husband and wife sold securities to a corporation wholly owned by them, some of the sales resulting in gains and others in losses to the sellers, the Tax Court held that the losses were not allowable as deductions, since specifically forbidden by the Internal Revenue Code, and furthermore that they could not be offset against the taxable gains realized.

Accruable Contributions.—The Tax Court has held invalid a provision of the income tax regulations requiring authorization of the payment of a contribution by directors of a corporation on the accrual basis of accounting to be in writing. The court allowed the deduction of a contribution authorized

orally by a board of directors during the year of accrual and paid before the 15th day of the third month thereafter.

Constructive Receipt.—Where a farmer sold and delivered wheat to a grain elevator association in 1947, at which time title to the wheat passed to the association, which was willing and able to pay for the wheat at that time but delayed payment until 1949 at the request of the farmer, a district court concluded that the farmer constructively received the sale proceeds in 1947 and that gain on the sale was taxable in that year.

Business Loss.—Regardless of whether a wife's purpose in entering into a written guaranty of her husband's debts was to cut her losses already sustained or to make a pecuniary gain, a subsequent payment by her on her guaranty is deductible in full as a loss from a transaction entered into for profit, a circuit court of appeals held, where the guaranty was entered into to protect securities which the wife had previously permitted her husband to pledge and where the husband had since died and recourse to his estate was impossible.

Excessive Rent.—The Tax Court has refused to allow a husband operating a business as a sole proprietor in a building rented from his wife to deduct as required rentals the greatly increased payments made to his wife under a new lease calling for payment to her of 45 per cent of the net profits of the business. The Court also found there was insufficient evidence to establish a joint venture or partnership between husband and wife.

Deductible Compensation.—A decedent may properly accrue as a business expense deduction in the tax return for the period terminating with his death, the net worth of his business which passed at his death to an employee under a long-standing agreement to compensate the latter for his services. In so holding, the Tax Court noted that the payment was reasonable

and that deductions can be taken for past services.

Holding Period.—The period of time during which a seller held capital assets may stop short of the time the sales price is received. The Tax Court decided that a short term gain was realized from a sale of securities in 1942 less than six months from the date of their purchase although a definite sales price was not agreed upon and final payment not received until 1945.

Embezzlement Loss.—Reaching a more liberal result than that of a district court in a similar case reported in the preceding issue of Sidelights, another district court decided that a taxpayer may deduct in the year of discovery embezzlement losses sustained in prior years. One difference in the facts of the two decisions is that here the exact dates of the embezzlements were unascertainable.

Public Contracts

Formal Bid Defect.—The comptroller general has upheld the provision of the armed services procurement regulations which authorizes contracting officers to waive the inadvertent failure by a bidder to furnish a bid bond simultaneously with its bid, if such waiver is in the public interest. However, on the facts in the case before him, the comptroller general ruled the bid should be rejected where the failure to furnish bond was not from oversight but due to financial inability to qualify for the bond before the bids were opened.

Freight Absorption.—In prohibiting major steel producers' continued participation in a planned course of action to establish or maintain prices of steel products, the Federal Trade Commission stated that its order is not intended to prohibit or interfere with delivered pricing or freight absorption as such when innocently and independently pursued, regularly or otherwise, with the result of promoting competition.

Barber-Greene

MODEL

543

BUCKET LOADER...



SAVES man power-truck time-money
LOADS all free-flowing materials
at 3 yds. per minute

Cost studies prove that nothing can compete with a Bucket Loader in lowest cost loading from stock piles to trucks.

The B-G constant flow principle virtually eliminates the human element—guarantees the same hourly production all day long, whether the operator is fresh or tired out.

The new Barber-Greene Model 543 is the last word in loading economy. Backed by over a billion cubic yards handled by its predecessors, this machine is ready to cut your loading costs.

The new hydraulically controlled trimmer-conveyor combines with time-proved B-G advantages—such as the Spiral Feed, Cleanup Scraper, automatic Overload Release and Floating Boom—to save appreciable manpower on every job. With its 15 m.p.h. road speed, the 543 can get to the job fast and move from pile to pile in a hurry. It is built for high production through years of low-cost service. In addition, it is convertible to a Snow Loader for year-round usefulness.

194-A

"See Your B-G Distributor"

BARBER-GREENE COMPANY
AURORA, ILLINOIS, U. S. A.

Shortages Indicate Progress

DIRECTOR of Defense Mobilization Charles E. Wilson's third quarterly report this month paints a broad picture of America's progress to date and what to expect in the future in meeting fantastic military goals under the long-range preparedness program.

By the end of September the military procurement and construction program had become a \$100 billion enterprise, including funds unspent at the time of the Korean invasion and appropriations for the two fiscal years ending June 30, 1951 and June 30, 1952.

While increased output from the expansion programs under way in our basic industries is only beginning to be realized, "we are emerging from the tooling up stage on many military items and are at the threshold of a period of volume production," Mr. Wilson reported.

Deliveries of military goods in the quarter just ended will total more than \$5 billion, more than one-third above the second quarter and over four times the rate of a year ago. This spectacular rise is expected to double again within a year to upwards of \$10 billion per quarter.

"At the same time, the basic industrial expansion that supports our greater military effort is also under way," the report added. "Private plant construction in manufacturing industries is running at a rate double that of a year ago.

"This means that the period of greatest stringency has now begun for metal-using industries. The total requests by industry for various types of steel, for copper and for aluminum in the coming quarter exceeded the supply by from 50 to 100 per cent.

"Keeping in mind that our defense mobilization program is a long-range program, our aim is to build our military productive capacity while maintaining at least a minimum operation of civilian economy—rather than undertake wholesale conversion of civilian plants as we would under conditions of full mobilization.

"The measures that are required are clear enough. Some of the necessary actions depend on government. Some depend on the willingness of organized business, agriculture and labor as well as individuals—to refrain from taking advantage of the opportunity to profit at the expense of the whole country in the national emergency."

While we are passing through a period when civilian goods and services cannot be significantly increased, the gross national product is expected to reach nearly \$350 billion in 1951 prices by the end of 1952, compared with about \$300 billion at the time of the Korean invasion.

Noting that the high rate of military and industrial expansion is fundamentally responsible for current shortages, Mr. Wilson said, "In a sense, the shortages are a symbol of our progress. If we were expanding only moderately we should have enough of nearly everything to go around."

He added that shortages of the three critical metals are intensified by shortages of scrap for their production, and that now is the critical period in the scrap

campaign because it will be harder to find and recover during the winter months.

While the period of relative price and wage stability begun early this year is still continuing, the report concluded, "a critical period in our battle against inflation lies ahead. We must anticipate that strong inflationary pressure will be resumed as defense spending grows and personal incomes mount."

Industry Cooperation

LAST MONTH the latest joint committee to be established by The Associated General Contractors of America with other industry organizations held its first meeting, bringing into action the ninth such group in which the association participates.

Important possibilities are offered in the study of mutual problems in the building materials field by the Joint Cooperative Committee of The Producers' Council and the A.G.C. (See Page 55.)

Since the establishment of the first such committee more than a quarter of a century ago, the A.G.C. has progressively expanded its cooperative work to many of the most important fields in the construction industry. The work of these committees today is of great benefit to general contractors and the entire industry.

Their work was reviewed thoroughly at the Midyear Board Meeting of the A.G.C. in Chicago.

It was noted that these committees on a national scale also have served to stimulate and assist similar cooperative work on a local scale in many states and communities.

The first joint committee meeting of the American Association of State Highway Officials and the A.G.C. was held in December 1920 in Washington, D. C. to obtain a better understanding of the difficulties faced by contractors in executing a big highway program by the most efficient methods possible. Since that time many problems have been ironed out in highway construction to the advantage of the public officials, the contractors, and the public.

These same advantages are resulting from steady activity in other fields.

The other seven joint cooperative committees are maintained by the A.G.C. with the American Society of Civil Engineers, The American Institute of Architects, the National Association of State Aviation Officials, the Associated Equipment Distributors, the Construction Industry Manufacturers Association, the Surety Association of America, and the Associations of Casualty Insurers.

The A.S.C.E.-A.G.C. Joint Cooperative Committee held its latest meeting in connection with the A.G.C. Board meeting in Chicago.

Indicative of its work was the statement to the boards by Gail A. Hathaway, president of the A.S.C.E. and a member of the committee, that its activity has been "extremely informative and beneficial to our society."



Bridge over the Mississippi River, Hastings, Minnesota, 2600 tons fabricated and erected.

Up-in-the-air job... built by down-to-earth methods saves you money, saves you time!

3 HUGE FABRICATING PLANTS OPERATE AS A UNIT

- Clinton Bridge Corporation
- Gage Structural Steel Corporation
- Midland Structural Steel Corporation

The bridge you see here in the course of construction is over the mighty Mississippi River at Hastings, Minnesota.

Have you noticed what's different about the erecting technique? Sure you have . . . it's the speedy water-level method of raising and joining the members, instead of the usual slow inching of erecting derricks over newly laid sections at the bridge floor level.

Exclusive construction innovations, with modern fabricating short cuts which can be carried on simultaneously in 3 plants operating as a huge manufacturing unit, combine to save you time and money.

Our engineering-estimating department would like to quote on your jobs wherever fabricated structural steel is specified. Send your plans and specifications to us.



Fabricators and erectors of structural steel for highway and railroad bridges; Industrial, office, school, and government buildings; Airport structures; Harbor facilities.

» ON OCTOBER 1 construction operations were gripped by tighter governmental controls.

Effective this month, by action of the National Production Authority on August 3, all non-defense construction projects to be started or continued which require the delivery in calendar quarters of greater than specified amounts of the controlled materials must receive allotments from government agencies according to the controlled materials plan. (September *CONSTRUCTOR*, page 21)

The full effects of this governmental control over the industry are not expected to be evident immediately. CMP is not expected to operate smoothly its first quarter in operation for construction. Also, with the contractors permitted to use at any time materials which were in his possession, or held for his account by another, by September 30, a true picture of operations under CMP probably will not be available for some time.

Administrator Manly Fleischmann of Defense Production Authority and

Face of Construction Changing Under Grip of Controls Plan

- NPA Sees Rough Going Through First Quarter of CMP
- Top Civilian Construction Year Slows Down

NPA has stated repeatedly that the latter part of this year and the first, perhaps all, of next year will be serious times of increasing shortages.

As the fourth quarter of this year started, there were reports from various parts of the country that construction projects such as schools, hospitals, highways, and commercial were being delayed by steel shortages. Congressional committees were undertaking investigations to learn if highways were receiving an appropriate share.

Prospective government expenditures give some clue to the future. In the fiscal year which ended June 30, the government spent \$44.6 billion, of which \$19.2 was for defense. In the

fiscal year starting next July 1, spending will have increased to more than \$87 billion, with more than \$55 billion for defense. Heavier defense spending will create greater demands for the materials used in construction.

Through September, the volume of new construction put in place continued ahead of the corresponding period for 1950 when a record was established of more than \$28 billion. Through September, new construction this year had totaled \$22.4, more than \$2 billion ahead of last year, and equal to the 1949 annual total.

1951 Volume 17% Ahead of 1950

While contract awards in the 37 eastern states declined slightly in August, F. W. Dodge Corp. reported, the eighth-month total was 17% ahead of the corresponding period in 1950. The volume of work actually to be performed, however, will depend largely on ability of contractors to secure materials under CMP.

President Glen W. Maxon of The Associated General Contractors of America has expressed confidence that general contractors have the capacity to execute all defense and essential civilian construction promptly and efficiently, but the contractor's principal difficulty will be in securing sufficient quantities of the right material at the right time for the right projects. He has also voiced the concern of the industry that the government's tremendous task of administering the even flow of the controlled materials to construction projects throughout the country will require good administration.

The last week of September the NPA issued a collation of 71 interpretations of its construction regulations, including 60 not previously announced. These interpretations were segregated into eight categories: controlled materials, self-authorization, copper and aluminum restrictions, commencement or continuance of construction, multi-use projects, categories of construction and delivery.

If You Can't Use It, Scrap It

- Steel Production Depends on Scrap Supply

» THE CONTINUED production of steel for all purposes—including construction—depends on a steady flow of scrap to the steel industry.

With the production of steel running at greater than the theoretical capacity of the industry for a good portion of the year, there have been increasing shortages of steel for all defense and civilian purposes including construction.

The heavy production has been chewing into scrap supplies so that the normal 60-day supply has been dwindling. Many mills now have enough scrap for only a week's production.

Last year when the steel industry produced a record 96.7 million tons of steel, it purchased 29.5 million tons of scrap. By the end of this year, capacity will be up to 107 million tons, and scrap requirements are 32.5 million tons. Next year with capacity at 107 million tons, scrap requirements will be 35.5 million tons.

Because of the seriousness of low scrap supplies, the NPA last month called an emergency conference on iron and steel scrap in Washington,

inviting many industry representatives, including The Associated General Contractors of America.

Now a drive is on to collect scrap from all industries and push it through regular channels to the steel mills.

Obsolete machinery in all kinds of industry is one bountiful source of scrap. It is likely that general contractors can clean out their yards and dispose of tons of old machines no longer usable in highly competitive work.

The present drive is directed toward "purchased" or "market" scrap which the steel industries buys primarily from other industries. This drive is not aimed at housewives or school children.

Experience has demonstrated that scrap can be found when top management of the company issues the appropriate orders to have it located and sold.

The general contractor who needs steel for his projects can do himself a favor by searching his projects and his yard for obsolete machines and other pieces of iron and steel to sell to scrap collectors.

Alternate Designs Allowed

Contractors bidding on specified types of Air Force buildings will be permitted to submit alternate forms of construction and design, Lieut. Gen. Lewis A. Pick, Army Chief of Engineers, has announced.

The policy announced covers construction bids on airmen's dormitories, indoctrinees' and overseas replacement dormitories, WAF dormitories, and mess and administration buildings. Alternate designs are to be bid in competition with designs prepared by the Corps of Engineers.

General Pick emphasized that this broader policy does not permit lowering the general standard of quality or size of the facility, or the use of methods or materials which have not been employed successfully. The intent is to secure the best type of construction at the lowest cost.

Earlier last month representatives of The Associated General Contractors of America conferred with Brig. Gen. J. R. Hardin, Assistant Chief of Engineers for Military Construction, and other members of his staff at which time General Hardin outlined the reasons for the policy for this particular type of construction.

In a letter to General Hardin after the conference, A.G.C. Managing Director H. E. Foreman stated that as a general principle the association holds the position that the owner should decide upon the type of construction and develop a definite design, and that the general construction contractor should be responsible for bringing the facility into being as quickly and economically as possible.

Standard plans are now being distributed to local builders' exchanges and similar organizations by the Army for the information of contractors, designers and material suppliers. The plans will permit prospective bidders to offer alternate construction details in the superstructure to accommodate features peculiar to proposed alternate methods of construction.

Revision of Delegation 14, which lists claimant agencies for construction programs, broadens Army Department authority over Corps of Engineer civil works projects, and clarifies the fact that applications for construction of power facilities by all but utility companies must be submitted to NPA for processing.

Engineers Will Be Scarce for 10 Years

• Educator Says Draft and Low Birth Rate Keep Supply Down

» THE CONSTRUCTION industry may expect an engineer shortage for over 10 years, according to recent U. S. Office of Education figures.

The annual need for 30,000 engineers of all types for industrial employment may not be met until 1965. The turnout may drop as low as 12,000 in 1952. A rise to 17,000 annually from 1954 to 1957 is expected and an increase to a normal supply and demand balance in 1965 is anticipated.

The low birth rate of the '30's is given as the basic reason for the light enrollment in engineering colleges.

In addition, engineering graduates are becoming more and more liable for military service and it is estimated that the 50% currently liable now will increase to 55% in '52, 75% in '53 and 80% in '54. One encouraging factor to offset these demands of the military will be the return to civilian life in '53 of approximately 19,000 engineers and another 14,000 in '54, who will have completed their two-year term of service.

At present engineering students are only deferred from draft call until graduation. Unless they can find employment in a defense industry within 30 days after graduation, they will be called to the service. As more become subject to military demands (up to 80% in '54), the only graduate engineers available to industry will be the 4-F's, the women and the veterans not receiving commissions or not enrolled in the reserves.

The Office of Education suggests that, in the face of the severe shortage impending, industry will do well to conserve available engineering talent. It recommends that engineers not be assigned to tasks which can be handled as well by men and women with less education. Furthermore, engineers ought to have well-trained assistants to relieve their administrative load.

The educators point out that an increase of efficiency of only 10% among the engineers who are now employed in the country would be equivalent to adding 40,000 engineers to the present labor force.

Beating the Engineer Shortage

Both government and private enterprise are recommending ways to beat the engineer shortage.

Secretary of Labor Maurice Tobin has announced recently a program calling for maximum use of the technicians in defense production, salary raises to keep them in the field and reasonable deferment policies.

In Pittsburgh, Sept. 28, a convocation of engineers, educators and industrialists heard one educator claim a 1951 need for 95,000 engineers—but only 38,000 are being graduated. The conference, sponsored by the Engineering Manpower Commission, asked for wiser draft policies, also, and maximum use of engineering skills.

Equipment Production Delay

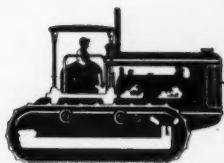
Materials shortages have sharply reduced production of construction machinery, the Construction Machinery Industry Advisory Committee has told the National Production Authority.

The industry's stated requirements for fourth-quarter allotments of controlled materials have been reduced 25 to 30%, NPA reported, because of the shortages.

One-fourth of all current orders are for the military, and almost all others are directly related to the defense effort, the industry says. NPA announced that \$100 million in certificates of necessity for plant expansion to increase production were being processed.

The study was undertaken at the request of the Engineering Manpower Commission, a group sponsored by six professional engineering societies. The commission is currently trying to alleviate the engineer shortage by encouraging high school graduates to enter engineering curriculums, advising colleges and government agencies on draft deferment problems and offering guidance to government policy makers on the conservation of engineering manpower.

Developments in this personnel field are closely followed by a joint committee of The Associated General Contractors of America and the American Society of Civil Engineers.



CARROLL TRACK ROLLERS

Stay ON THE JOB



The Newest Engineering Development in Track Rollers
 . . . PIONEERED BY CARROLL

Again Carroll scores a bull's eye!

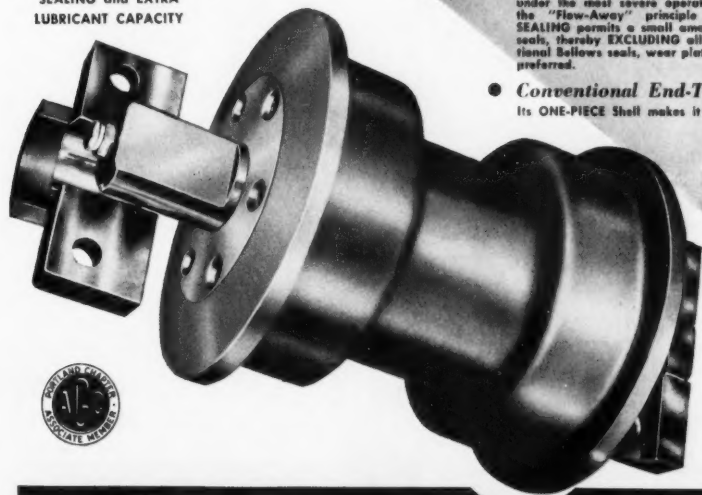
The new Carroll Track Rollers with "GUARD-Z-OIL" DIRT-EXCLUSION SEALING. Like former Carroll Rollers, have ONE-PIECE manganese Alloy Steel Shells. The roller assemblies with Center-Thrust Type Shafts, are mounted by means of Mounting Blocks (NOT END COLLARS) . . . to permit efficient operation of the "Flow-Away" Dirt-Exclusion feature! Tested, proved, revolutionary! . . . Ready to go to work for you to reduce shutdown time and maintenance costs!

All With
ONE-PIECE SHELLS
 OF MANGANESE ALLOY
 STEEL
 Pressure and "DE"
 Series Have

GUARD Z OIL
 SEALING and EXTRA
 LUBRICANT CAPACITY

NOW . . . Three Distinct Carroll Rollers are Available:

- **Pressure Lubricated Rollers**
 The Rollers that Pioneered the principle of "Guard-Z-Oil" DIRT-EXCLUSION SEALING. SELF-LUBRICATED BY OIL UNDER PRESSURE supplied by a simple cam activated pump in EACH roller--no connecting lines. Patented.
- **"DE" Series Interchangeable Rollers**
 With the perfection of this new Carroll Roller, long life performance under the most severe operating conditions is assured. When used, the "Flow-Away" principle of "GUARD-Z-OIL" DIRT-EXCLUSION SEALING permits a small amount of grease to pass outward past the seals, thereby EXCLUDING all dirt and abrasives. Old type, conventional bellows seals, wear plates and end collars can be utilized where preferred.
- **Conventional End-Thrust Rollers**
 Its ONE-PIECE Shell makes it a good buy!



"DE" SERIES PARTS
 INTERCHANGEABLE
 WITH "CATERPILLAR"
 The Carroll "DE" Series D-8
 and D-7 Shells, Shafts and
 Bearings are interchangeable
 for use in "Caterpillar" Rollers.
 All End-Thrust parts fully
 interchangeable.



Ask for
**ILLUSTRATED
 LITERATURE**
 and
**Complete
 Information**

CRAIG CARROLL COMPANY
Equipment Engineers

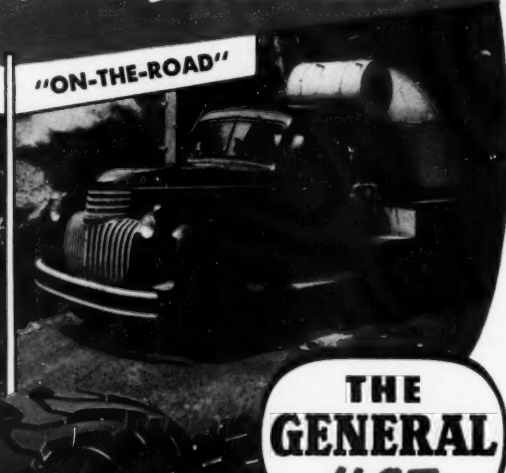
GENERALS

GO IN—GET THE LOAD—CARRY IT OUT
AND OVER THE HIGHWAY

FASTER! EASIER! At Lower Cost!



"OFF-THE-ROAD"



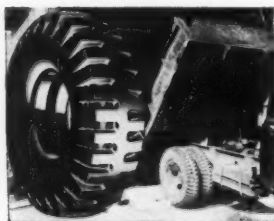
"ON-THE-ROAD"

**THE
GENERAL
D.T.L.**

GENERAL D. T. L. with deep, sharp, angled cleats and sturdy, high shoulder lugs. Designed for maximum traction on soft surfaces—forward or backward.

GENERAL H. C. T. for trucks that go off-the-road to pick-up, deliver loads. Free-rolling tread and stronger body for more miles, more safety.

**THE
GENERAL
H.C.T.**



**GENERAL
NON-DIRECTIONAL
CLEATED**

Best for dump trucks. Self-cleaning tread for extra drive-wheel traction forward or backward.



GENERAL TRACTOR GRADER
For power wheels—sharp, self-cleaning tread for extra traction. For front wheels—easy steering, smooth riding ribs.

Specify **GENERAL TIRES ON YOUR NEW EQUIPMENT**

» THE COMPLEX problems of efficiently carrying out defense and essential civilian construction under a controlled economy were studied by representatives of The Associated General Contractors of America at the midyear meeting of its Governing and Advisory Boards September 6-8 at the Edgewater Beach Hotel in Chicago. The attendance of more than 300 represented the nation's leading construction firms throughout the United States and Alaska.

Meeting Details in Other Departments:

Legislation	Page 31
Labor Relations	Page 33
Building Contractors	Page 37
Apprentice Training	Page 38
Heavy Contractors	Page 43
Highway Contractors	Page 47
Secretaries' Council	Page 61
Accident Prevention	Page 67

Longhuest discussion was devoted to the various controls on construction operations and on wages. Other specific subjects discussed included the administration and effects of the controlled materials plan on construction; the effect on contractual relationships if projects are delayed because of lack of controlled materials; possible price controls over the industry; legislation affecting construction; market development; accident prevention; appren-

Industry's Controls Problems Aired at A.G.C. Board Meeting

- Seek Means of Maintaining Efficient Operations
- Horner, Street Nominated for 1952 Offices

tice training; and public relations.

Officers nominated by the Boards for 1952 are:

Arthur S. Horner, A. S. Horner Construction Co., Denver, Colo., for president, to succeed Glen W. Maxon, Dayton, Ohio. Mr. Horner is 1951 vice president.

C. P. Street, McDevitt & Street Co., Charlotte, N. C., for vice president, to succeed Mr. Horner. Elections are held in December by mail ballot. Installation of new officers takes place at the close of the next annual convention scheduled for Detroit, Mich., February 25-28, 1952.

In opening the meeting, President Glen W. Maxon stated that it was the duty of the members, through the A.G.C., to point out any serious effects of controls upon their businesses and their clients, and to report to the association on local effects as fully as possible.

"During national emergencies, general contractors through this associa-

tion have cooperated with government agencies to the end that essential government objectives can be attained with the least possible disruption to the industry's productive capacity and efficiency," he said. "Today, we, as general contractors, have a heavy responsibility to determine the recommendations we should make to bring about those conditions under which we can operate so that the public will be served to the maximum ability of the industry." (Text of his opening address is on page 28.)

Association's Position Strong

In presenting his summary of association activities since the annual convention last March, Managing Director H. E. Foreman, Washington, D. C., reported the A.G.C. is in its strongest position in history in membership, finances, and prestige.

Mr. Foreman briefly reviewed the association's actions in labor relations, public relations, legislation, and cooperative action with other segments of the construction industry, pointing out that the A.G.C. had "pioneered" in the establishment of standing joint cooperative committees with other national trade associations and professional societies.

Referring to the growing burden and responsibility on the staff of keeping the membership informed speedily and accurately of the multitude of governmental actions affecting their businesses, Mr. Foreman said it required the utmost in teamwork. (Text was printed in September *CONSTRUCTOR*.)

Controls Operations Explained

The operation of the new controlled materials plan for construction which becomes effective October 1, and all regulations affecting construction operations were reviewed thoroughly before the Boards and the divisional roundtable meetings by C. S. Embrey of the A.G.C. national staff.

H. C. Turner, Jr., of Turner Construction Co., New York City, chairman of the Building Contractors' Division, who has been serving on industry advisory committees to the National



National officers. Left to right, H. E. Foreman, managing director; President Glen W. Maxon; Vice President Arthur S. Horner, who was nominated for 1952 president; and Vice Presidential Nominee C. P. Street.

Production Authority and the Office of Price Stabilization, led the discussion on recent NPA actions and the prospective issuance of a price regulation covering construction operations. Other industry advisory committee members at the meeting also made observations.

Mr. Turner expressed the opinion that essential projects should "fare very well" under CMP, while others will experience slowdowns. He noted that A.G.C. members have received prompt notification of actions affecting their work in defense bulletins and newsletters.

Building Construction

The subjects of wage regulations, construction controls, the steel shortage, apprentice training, and modular coordination highlighted discussion in the roundtable meeting of building contractors.

The participation of A.G.C. chapters in the drive for steel scrap was recommended, and the urgent need for enrolling more apprentices in the bricklaying trade was recognized.

Building contractors were asked to supply information to the national office about their experiences in constructing a modular-designed structure. Several members present indicated an unfavorable experience with buildings designed under the modular coordination system—a movement toward the standardization of sizes of all types of building materials which is being backed by architects and many materials producers.

Chairman Turner reported actions of the meeting, which also commended the service in the field of governmental controls of A.G.C. members serving on advisory committees, the officers, and the national staff. (Further details on Page 37.)

Highway and Airport Construction

The problem of increasing steel allotments for highway construction was a lengthy topic for highway and airport contractors, F. W. Heldenfels, of Heldenfels Bros., Corpus Christi, Tex., vice chairman of the Highway Contractors' Division, reported. He presided in the absence of Chairman E. J. Maupin, Jr., of Dodge Construction, Inc., Fallon, Nev.

While the Bureau of Public Roads was reported to be doing "a good job in general" of processing applications for highway construction, NPA officials were held to be "not aware of the great importance of highways and

highway transportation to the nation's economy and to national defense."

Much progress was reported in obtaining state adoption of emergency termination clauses in contracts.

The contractors recommended action by the Civil Aeronautics Administration toward easing the "very severe and unrealistic" requirements specified for compaction on airport construction. While it was noted that construction under the federal airport program will be small this year, there remains nearly a billion dollars of airport work to be done in the next five years.

The need was emphasized for speedy adoption by federal agencies of a "realistic scale" of equipment rental rates.

Also discussed was the 800 million dollar program of the Rural Electrification Administration. (More details on Page 47.)

Heavy and Railroad Construction

Roundtable discussion of the heavy contractors, as reported by George Heller, of Johnson, Drake & Piper, Inc., Minneapolis, chairman of the Heavy Construction and Railroad Contractors' Division, centered around specifications, controls and labor developments.

Beneficial changes were reported made in Corps of Engineers' specifications upon recommendation of an A.G.C. committee, and association representatives also reported recommending three changes in construction procedures of the Bureau of Reclamation. The A.G.C. task unit working with the Bureau of Yards and Docks of the Navy reported plans to meet with Navy officials to discuss bidding and awarding practices. (See Page 43.)

Committee Actions

Legislative—Vice President Horner as chairman of the Legislative Committee, told the Boards that the association's prestige has been increasing because of its public-interest objectives and the presentation of factual information to Congressional committees either upon their request or when deemed desirable on behalf of the industry.

"The association's reputation is built on a solid foundation through the presentation of factual statements on which committees can base legislation affecting our industry, as opposed to the high pressure methods of some groups," Mr. Horner said. He added that the impracticality of attempting to have members act on all the great

volume of legislative matters under consideration made it wise to rely largely on prompt action of the national staff in Washington in presenting information.

However, he called attention to the importance of "grass roots" action on the part of individual members in making their views known to their representatives in Congress.

In his review of major legislation enacted or pending, Mr. Horner reported the Legislative Committee saw the recent criticism leveled at the Corps of Engineers being used as an "entering wedge" for some groups to seek legislation for more valley authorities patterned after the Tennessee Valley Authority. The committee called attention to the A.G.C.'s consistent stand against such legislation. (Further details on page 31.)

Labor—The many involved problems of wage control administration and jurisdictional disputes in the construction industry were subjects of discussion in the general sessions; in the separate round-table meetings of the building, heavy and highway contractors; in the meetings of the Secretaries' and Managers' Council; and a session of the Labor Committee held prior to the Board Meeting.

The Labor Committee's report, discussing establishment of the Construction Industry Stabilization Commission and operations of the Joint Board for the Settlement of Jurisdictional Disputes was presented by Chairman L. C. Rogers, of Bates and Rogers Construction Corp., Chicago.

The committee praised the work of John C. Dunlop, impartial chairman of the jurisdictional disputes board, and received authorization from the Governing and Advisory Boards to proceed with negotiations for continuing the jurisdictional board for another year "subject to a study of the problems that have arisen . . ."

The policies and operations of the Wage Stabilization Board and the CISC were explained by A.G.C. Assistant Managing Director J. D. Marshall and his staff. Mr. Marshall, who is a member of the CISC, touched on the many problems confronting that body in administering wage controls for construction. (Further details on page 33.)

Market Development—The possibility that general contractors specializing in work now being curtailed may find it necessary to convert to other types of construction or to organize

joint ventures for projects which they could not handle alone, was reported by the Market Development Committee, headed by P. D. Christian, Jr., of Christian & Bell Co., Atlanta, Ga.

Larger contractors were urged to subcontract portions of their work to smaller organizations when possible.

"For the long-range program," the committee reported, "it is urged that private business, and federal, state and local governmental agencies continue advance planning to the extent deemed economical so that these projects may be initiated with a minimum of delay when conditions permit construction."

Contract Forms and Specifications

The several task committees and subcommittees of the Contract Forms and Specifications Committee have made good progress on several projects, according to the report of the over-all coordinating committee. The report was given by E. J. Wheeler, of Frank Messer & Sons, Inc., Cincinnati, Ohio, acting chairman, for Chairman George H. Atkinson, of Guy F. Atkinson Co., San Francisco.

Consideration was given to suggested provisions in contracts to cover liabilities under governmental controls. It was recognized that the prime contractor has many new responsibilities and hazards under conditions where a project may not be completed on time because of the lack of controlled materials.

Work was reported completed in cooperation with representatives of the American Institute of Architects on changes in the general conditions, 5th Edition of the A.I.A. Fixed Price Form of Contract, concerning liability and fire insurance; and other architectural forms.

The committee expressed displeasure with the Defense Department's action of last June requiring performance bonds in the amount of at least 50% of the contract price, pointing out that the large increase "will cut down competition on large projects and offer an excuse for rejection of bids and adoption of the day labor method in some cases."

The committee was in agreement with criticism recently leveled at the Defense Department by a subcommittee of the House Committee on Armed Services for the waiving of the requirement of bid bonds.

Apprenticeship—Greater activity and interest on the part of management and labor to recruit more apprentices to alleviate the tightening shortage in

bricklayers was strongly urged in the report of the Apprenticeship Committee, presented by Chairman Fred Fisher, of Fisher Construction Co., Houston, Tex. It noted that the number of apprentices in training had dropped 11% in the first seven months of 1951.

The committee recommended renewed activity in publicizing the importance of apprenticeship. Opportunities afforded the industry are talks in high schools and civic clubs, the holding of apprenticeship contests and conferences, and the employment of full time coordinators of local apprentice training programs.

A plan approved by the Secretary of Labor, and now being considered by the Selective Service System, providing for deferment of apprentices from induction, was endorsed by the committee.

Contractors were cautioned to acquaint themselves with the strict requirements concerning employment of apprentices on federal projects before bidding on such work.

Mr. Fisher also made an additional report to the building contractors' round-table meeting, and a motion picture of Minnesota apprentice training activities was shown to a special meeting. (Further details on page 38.)

Accident Prevention—Chairman H. B. Alexander, of H. B. Alexander & Son, Harrisburg, Pa., reported a record attendance at the meeting of the Accident Prevention Committee, which called for forwarding the "new emphasis" on safety being promoted in the association.

Wider participation of A.G.C. members was asked in reporting safety data for comparisons to judge their own efficiency, and to build up useful information for the industry. Mr. Alexander asserted that resistance must be built up against efforts to control accidents by legislation.

Good results were reported from work of the chapter secretaries' and managers' liaison committee with the main committee. (More details on Page 67.)

Membership—The Membership Committee, headed by Fred I. Rowe, of W. L. Johnson Construction Co., Columbus, Ohio, reported the association had grown to a membership of 6008 in 116 chapters throughout the U. S. and Alaska. Chapters added during the year are the Upper Peninsula, Michigan; Florida Central East Coast; El Paso, Texas; and Maine.

"Because of the solid foundation on which the A.G.C. has been built, and the excellent service which it has given to its members, there has been almost continuous growth throughout its history," Mr. Rowe said.

Public Relations—The Public Relations Committee report, given by Chairman John MacLeod, of Maceo Corp., Paramount, Calif., indicated a movement toward stronger public relations activity on the part of the chapters, with a consequent demand for more material from the national office for local application.

The committee approved plans of the national office to expand the public relations staff to develop more material. A meeting was held by the committee with a liaison committee of the Secretaries' and Managers' Council to discuss needs and the ability of chapters to take full advantage of local application of publicity.

The Finance Committee's report, by Past President Walter L. Couse, Detroit, Mich., indicated the association is in a sound condition.

Secretaries' and Managers' Council

The A.G.C. Secretaries' and Managers' Council met September 5 to confer on matters of chapter management. After hearing from the association's chief executives, the council heard reports from its own committees and discussed administration of chapter affairs. Council chairman Allan E. Gifford, of the A.G.C. of Massachusetts, presided at the morning general session.

In the afternoon, vice chairman Robert Patten, of the Carolinas Branch, presided over the meeting for building chapters, and vice chairman Earle W. Devalon, of the Colorado Contractors Association, presided over the meeting of highway and heavy chapters. William C. Bowden, of the Master Builders Association of Allegheny County, Penna., is secretary-treasurer. (More details on Page 61.)

Future A.G.C. Meetings

Plans were approved for future A.G.C. meetings as follows:

33rd annual convention, Statler Hotel, Detroit, February 25 through 28, 1952. Hosts: Michigan A.G.C. chapters.

Midyear Board Meeting, Greenbrier Hotel, White Sulphur Springs, West Virginia, September 8 through 10, 1952. Hosts: A.G.C. of West Virginia, and Carolinas Branch.

Free Exchange of Information Is Present Need, Maxon Says

• A.G.C. President Glen W. Maxon Urges Board to Keep Association Informed, But Flexible

» IN CONVENING the meeting, it occurs to me first that, although you are elected as directors from the states, you are not and do not take the position of delegates-at-large or delegates from any particular state. You come here as directors of a corporation and as directors you have two distinct duties and responsibilities: First, to judge the effectiveness of the operational program of your national association; second, to make recommendations or suggestions which you think will be of benefit to that program, increase its effectiveness and help in the operation of your business in any way by which it can be improved. That is your purpose.

As your president, I have assumed that all of you have kept well in touch with the conditions in your area and with the effect in your particular part of the country of the changes which are going forward so rapidly in Washington as a result of the defense effort.

Within the last few months I have written to all of you asking your assistance and your cooperation. Many of you have written me. I appreciate those letters and the help and suggestions which came from you. We are attempting to act upon them. Those of you who have not written to me probably have reserved your recommendations for this meeting, and we will look forward to receiving them and your comments upon the way you feel the operation of the association should proceed.

Flexible Program Needed

In speaking of the operation of your association, its actions must be definitely objective, but the program of attaining those objectives must be very flexible. Your officers and your staff must have considerable latitude in their judgment as to how to go about attaining the results which you desire. An inflexible directive from this board might tie the hands of your staff in Washington and of your officers. Even though a directive today might seem good, things are changing so rapidly in Washington that it might be exactly

the opposite from the operational method which your staff and your officers might find necessary to use.

Such type of directive might be likened to a specification (and we all know what specifications are) which would prescribe a method and a result. You know it just doesn't work, especially when you get a tough job. If it's an easy job, anybody can run it. The job over in Washington is getting tougher and tougher all the time.

Staff Men Are Specialists

I want to point out to you now that, in relation to the operation of our association, we gentlemen who are in the construction business are especially fortunate in having with us, as secretaries and managing directors both of the national association and of the chapters, men of especially high calibre. Practically all of them are specialists in some field. That applies to the chapters as well as to the national staff.

These specialists are giving us all of their time. If we want to get the best results from that time and from their efforts, we cannot hamper them too strictly with detailed regulations or detailed instructions. They are just as important to us as our doctors and our lawyers, and they tell us what to do.

Now as to the conditions in Washington, you all know you are kept posted by the staff and the press; almost every trade journal, publication or news letter of any kind carries forward to you—daily and weekly—a great volume of material telling what is going on in Washington. As you know, we have *THE CONSTRUCTOR* and the *National Newsletter*.

We cannot, as a trade association or just as citizens, be made cognizant of the entire plan for the national defense or any particular part of it. That is proper. We all recognize it, but out of that defense plan as a necessity for its successful operation, the controlled materials plan has evolved. Any control is basically a matter of favoring one industry or one section of the na-

tion over another industry or section; that is basic. It therefore may be called definite favoritism but it can't be helped. The military must have so much, industry must have so much to serve the military.

Therefore, because we cannot be properly and fully informed as to the defense effort and its needs, we cannot criticize the program of controls in its entirety. We cannot say that the controls program is wrong. All we can do is to study and analyze that program and attempt to report to you here its effect on your industry. Since your industry stands between the public and all industry, it serves all industry in producing those facilities which it requires to function, and it becomes our duty and your duty to point out the serious effect that any particular ruling may have upon your business or the business of your client which serves the military or which serves the public in general upon which the manpower must depend, upon which the defense agencies must depend for their manpower.

Purpose of Meeting Declared

That is our purpose as I see it in this board meeting this week—to give to your staff and to your officers as full and complete information as possible on how your section of the country and your business is affected by the proposals of NPA and OPS. With that information, your staff can approach "the powers that be," the determining agencies in Washington, and attempt to outline to them where their rulings may be modified in such a way as to minimize the stoppage effect upon your business.

Speaking of the meeting in general, we have on our agenda various reports from your committees and from the members of your staff. They are designed to be informative to you. You are at liberty at the close of each of those reports to ask particular questions concerning that subject. We would appreciate it greatly if you did not deviate from the subject of the report in your questions or discussions until that part of the program, the report part, the first eight sections on this morning's agenda, are completed. Then we will throw the meeting open for general suggestions such as I have asked you to bring to us, suggestions designed for the betterment of the association or questions asking for information concerning certain subjects on which you would like information.

» ARTHUR S. HORNER, president of the A. S. Horner Construction Co., Denver, Colo., and C. P. Street, secretary and general manager of McDewitt & Street Co., Charlotte, N. C., have been nominated by the Governing and Advisory Boards as presidential and vice presidential candidates of the A.G.C. for 1952.

Mr. Horner, a native of Topeka, Kan., has been personally involved in the construction industry all his life. His father was a building contractor. Mr. Horner was schooled in Washburn College and the University of Colorado, being graduated with a B.S. in Civil Engineering in 1922.

He worked as an engineer on various Colorado projects five years, then established his own organization in 1927. The Horner Co. specialized in the construction of bridges, viaducts and underpasses until World War II when it built sewage disposal plants and reservoirs for army camps.

Typical Horner Projects

In the past nine years, the Horner organization has become adept at constructing larger projects—dams and highways, particularly. These include a diversion dam across the Arkansas River and structures on 25 miles of canal, excavations and foundations for a rod mill, several Colorado state highways on mountain terrain, and a major project on the Colorado-Big Thompson Irrigation Project at Estes Park, Colo. The latter job and part of Bonny Dam were undertaken by Horner with Switzer & Hayes Co., Arvada, Colo.

Mr. Horner, married in 1923, has one daughter, Joan.

He is a member of the Colorado Society of Engineers, American Society of Civil Engineers, Denver Chamber of Commerce, Denver Rotary Club and a director and past president of the Colorado Contractors Association.

Mr. C. P. Street, the A.G.C. vice presidential nominee for 1952, is a native of Cadiz, Ky. He was graduated from Vanderbilt University, Nashville, Tenn., in 1922.

In the same year he took a position with the McDewitt-Fleming Co., now the McDewitt & Street Co., and has served the same firm, with increasing responsibilities, since then. He is now secretary and general manager, a position he has held since 1940.

The McDewitt & Street firm has completed, some in cooperation with other A.G.C. firms, many public and

Boards Name Horner and Street for 1952

• Experienced Construction Men Slated for Top A.G.C. Posts



C. P. Street

private buildings in the Southeast. The company's list of accomplishments includes construction of state and county government buildings, schools, large office buildings, the Municipal Auditorium at Tampa, Fla., private hospitals, Veterans Administration hospitals at Birmingham, Ala., Clarksburg, W. Va., and Durham, N. C., college buildings and industrial plants.

Street Active in A.G.C.

Mr. Street has served A.G.C. in many capacities in the course of his career as an outstanding contractor—as chairman of the Public Relations Committee for several years, as chairman and vice chairman of the Building Contractors' Division, as vice chairman of the Ethics and Trade Practice Committee, and as a member of the Executive Committee, Advisory Board and Finance Committee.

The Carolinas Branch, A.G.C., has selected him to be president, vice president and treasurer at different times.

Nominations for state directors, which closed Sept. 15, will be announced after ballots have been canvassed and tabulated. Election of officers and directors will be by mail ballot in December. They will be installed at the close of the next convention.



A. S. Horner

Centennial of Engineering

Plans for celebration of the 100th anniversary of the American Society of Civil Engineers were described by President Gail A. Hathaway to the A.G.C. Midyear Board Meeting.

Professional societies and associations in the industry have formed the non-profit organization, Centennial of Engineering in 1952, Inc., to plan and carry out the celebration.

An Exposition will continue throughout the year, and a Convocation of Engineering will be held in Chicago from September 3 to 13, 1952. Mr. Hathaway stated that cooperation of the A.G.C. would be welcomed.

He reported that a block of 10,000 hotel rooms had been set aside for the convocation which is expected to be the largest gathering of engineers ever convened anywhere.

The 1952 Midyear Board Meeting of the A.G.C. will be held in White Sulphur Springs, W. Va., from September 8 to 10. Special attention was called to the fact that A.G.C. members planning to attend that meeting had five days prior to the A.G.C. meeting in which they could attend the Convocation of Engineering, as well as three days afterwards.

TRUSCON... a name you can **build** on



Double-Hung Window



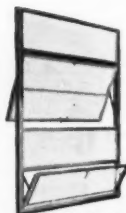
Residential Casement



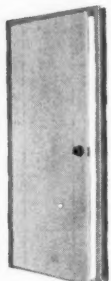
Pivoted Window



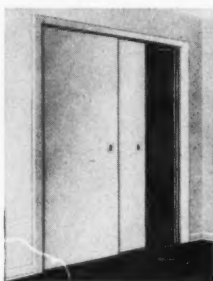
Commercial Projected Window



Architectural Projected Window



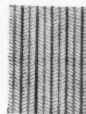
Residential Door



Residential Sliding Closet Door



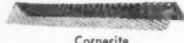
Diamond Lath



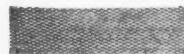
Herringbone Doublemesh Lath



Hollow Partition Studs



Cornerite



Strip-It



No. 607 Bull Nose Corner Bead



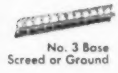
No. 15 1/2 Scalloped Edge Corner Bead



Self-Sentering Lath



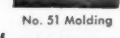
No. 604 Bull Nose Corner Bead



No. 3 Base Screed or Ground



No. 72 Wide Flange Casing



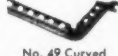
No. 51 Molding



Cold Rolled Channels



No. 8 Rib Steel Corner Bead



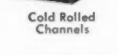
No. 49 Curved Paint Base Screed with Corner Fittings



No. 36 Short Flange Casing



3/8-in. Ribplex Lath



No. 14 Bull Nose Corner Bead



No. 15 1/2 Scalloped Edge Corner Bead



No. 23 Picture Mold



No. 34 1/2 Wide Flange Casing



Stucco Mesh



No. 12 Wide Flange Corner Bead



No. 700 Partition Cap



No. 35 1/2 Short Flange Casing



No. 45 Casing Clip



No. 46 Corner Bead Clip



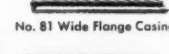
No. 7 Expanded Corner Bead



No. 1 Base Screed - Flush Type



Tie Wire



No. 81 Wide Flange Casing



No. 31 Short Flange Casing



Truscon has what it takes... for **better** business

Truscon has the *exact* design... the *quality* construction... the *complete* range of steel building products you need for building volume business and prestige in your community.

Truscon offers *one* reliable source of supply for all these building necessities, available to you through the Truscon nation-wide system of sales offices and warehouses.

Concentrate on Truscon Steel Building Products for dependable performance and user satisfaction on every job. Write for free literature describing the entire line of Truscon Steel Building Products for a *better* business program.



TRUSCON® STEEL COMPANY YOUNGSTOWN 1, OHIO
Subsidiary of Republic Steel Corporation

» AN ENVIABLE reputation in its relations with Congress has been gained over the years by The Associated General Contractors of America through its honest presentation of facts to Congressional committees for their consideration when writing legislation affecting the construction industry. A.G.C. Vice President Arthur S. Horner told the association's Mid-Year Board meeting in Chicago.

As chairman of the Legislative Committee, Mr. Horner reported on that group's activities and outlined the association's general functions in the legislative field.

"The association's prestige is built on a solid foundation through the presentation of factual statements on which committees can base legislation affecting our industry, as opposed to the high pressure methods of some groups," he asserted.

Mr. Horner added that the impracticality of attempting to have members act on all the great volume of legislative matters under consideration made it wise to rely largely on prompt action of the national staff on the scene in Washington. The com-

Legislative Trends Reviewed by A.G.C.

• Factual Presentations Underpin Relations with Congress

mittee commended the work of the national staff, and especially that of B. L. Knowles, legislative representative.

"The committee can more effectively do the job that you want done if they have your cooperation and you make known to the chairman or the vice chairman or members of the committee with whom you are acquainted or who are in your territory, your reactions to the legislation that is pending so that they may take some steps to present the cumulative ideas of you men all over the country.

"Also, many times the board and members of this organization, by contacting their Senators and Representatives, can show grass roots reaction that is just as effective as contact in Washington," he said.

Mr. Horner reviewed briefly all current major legislation of interest to the construction industry, including appropriations, authorizations, the housing act, force account limitations

on federal agencies, tax measures, and basing point legislation.

The sense of the committee was that the all-inclusive nature of the government's proposal for a multi-billion-dollar War Damage Administration to provide indemnity for injuries to persons, as well as to property as the result of an enemy attack, is "dangerous," and that enactment of pending legislation for a War Damage Corp. similar to that of World War II would be desirable.

Work in preparing and presenting testimony on behalf of the association to the Senate Finance Committee seeking changes in the proposed tax law was commended by the committee.

Mr. Horner saw the recent criticism leveled at the Corps of Engineers being used as an "entering wedge" for some groups seeking legislation for more valley authorities patterned after the Tennessee Valley Authority, and called attention to the A.G.C.'s consistent stand against such measures.

The committee also noted the support of the Procurement Subcommittee of the House Armed Services Committee in opposing the consideration of irregular bids by government agencies, particularly the waiving of the requirement of bid bonds.

Big Military Construction Program Slated

• Appropriations Being Considered for \$5.9 Billion List

» THE LARGEST military construction program ever included in one bill became law on September 28 when the President signed H. R. 4914 authorizing \$5.9 billion for construction projects of the Army, Navy and Air Force.

Funds for the authorized military construction projects were being considered by a House Appropriations subcommittee at the end of last month. For construction during the current fiscal year, about \$4.6 billion is expected to be provided.

The authorization bill is intended to complete a three-part program for defense. The three divisions in this program are (1) military personnel, (2) equipment and supplies, and (3) military bases and facilities. Construction projects authorized in H. R. 4914 will supply the large part of the need for bases and facilities and will be completed over the next two years. However, as original Defense Department estimates for military construction totalled \$12 billion, current programs will probably be expanded as they near completion.

The Air Force will get the lion's share of authorized construction projects—\$3.5 billion worth. Seventy-seven new air bases will be constructed within the country bringing the total of Air Force bases to 309, and the majority of runways will be widened to 200 feet and lengthened to 8,000 feet. A total of \$415 million will be spent for overseas bases.

The Army's construction program totals \$1.4 billion, of which \$940 million is for continental projects, \$175 million is for overseas construction, and \$302 million for secret facilities.

The Navy will construct new facilities totalling \$832 million—\$629 million continental; \$89 million overseas; and \$113 million secret.

Projects totalling \$133.8 million will be undertaken jointly by the three services.

H. R. 4914 specifically provided that the major portion of home building to house military personnel attached to new bases will be undertaken by private builders under the Wherry Housing Act.

Transportation Tax

The Senate Finance Committee inserted Section 485 in H. R. 4473, the \$5.5 billion tax bill now being debated by Congress, which amends Section 3475 of the existing law on transportation of property by adding at the end:

"The tax imposed by this section shall not apply to the transportation of earth, rock, or other material excavated within the boundaries of, and in the course of, a construction project and transported to any place within, or adjacent to, the boundaries of such project."

Such an amendment had been recommended by The Associated General Contractors of America in testimony before the committee (August *CONSTRUCTOR*, page 57). The amendment was expected to be passed by the Senate which was debating the bill at the end of last month, and to be retained when Senate and House conferees settle differences on the bill.

MACK TRUCKS

See You Through

• There are many good reasons why a Mack is your best truck investment during times like the present. Most important of all is the undisputed fact that Mack trucks outlast them all.

This means that with a Mack truck you can face the uncertainties of the future with assurance...confident that even if trucks should become hard to replace your Mack will see you through...that it will stay on the job delivering dependable service mile after mile and year after year.

Thousands of truck users in World War II found out by actual experience that they were indeed "Lucky to own a Mack." Whatever the future may bring, you'll find that for a sound investment in long-term reliability and operating economy there's no other truck to match a Mack.

Your nearest Mack branch or distributor will give you the full story on what "Built Like A Mack" means in *extra* long life, *extra* strength and stamina, *extra* performance and *extra* dependability.

In punishing contracting service Mack trucks "see you through" with long-lasting dependable operation. This Model LJ six-wheel Diesel Mack serves D'Addario Contracting Co. of Bridgeport, Conn.



...outlast them all

Mack Trucks, Empire State Building, New York 1, N.Y. Factories at Allentown, Pa.; Plainfield, N. J.; Long Island City, N. Y. Factory branches and distributors in all principal cities for service and parts. In Canada: Mack Trucks of Canada, Ltd.

» **POLICIES** and activities of the association in labor relations were thoroughly reviewed and approved by the A.G.C. Midyear Board Meeting.

Chairman Lester C. Rogers, of Bates and Rogers Construction Corp., Chicago, reported on the Labor Committee's day-long meeting and offered the motion which was approved by the Boards authorizing the Policy and Negotiating Subcommittee to negotiate for continuation of the National Joint Board for the Settlement of Jurisdictional Disputes beyond December 31 provided that a satisfactory agreement is made.

In reporting for the committee, Mr. Rogers pointed out that the principal work is done by Assistant Managing Director J. D. Marshall, William E. Dunn and Edward T. Kelly of the national staff, by the men who serve on various boards, and by chapter managers.

The value to the industry of the Construction Industry Stabilization Commission, which is composed of men familiar with construction and which administers the wage stabilization program in the industry for the Wage Stabilization Board, was cited

Wage Problems Studied by A.G.C. Boards

• Jurisdictional Board Praised, Continuation Authorized

by Mr. Rogers who pointed out how the A.G.C. took a leading part in its establishment.

Mr. Marshall, and Everett E. Dunn, of Hartley, Iowa, who are members of the commission, explained its operations and the difficulties which the CISC faces. The Boards commended the men for their work.

The value to the industry also of the National Joint Board for the Settlement of Jurisdictional Disputes was cited by Mr. Rogers, who pointed out again the part which A.G.C. played in establishing the board and participating in its operations. The committee commended John Dunlop for his work as chairman of the board, and expressed appreciation to Mr. Marshall and J. William Wade, of Skokie, Ill., for their work as members of the board.

While the board generally has been successful in averting prolonged stoppages of work for jurisdictional reasons, the committee recommended that

when the agreement is renewed, discussions be held with the unions on adhering to the agreement.

The committee discussed bills pending in Congress to amend the Labor-Management Relations Act, and the problems created for general contractors by other groups signing national labor agreements and by employers of one craft.

In his part of the report, Mr. Marshall outlined how the national association gathers and disseminates information to chapters and members and works for procedures whereby chapters and contractors have an opportunity to present information to the appropriate government agency before action is taken.

The CISC has adopted a regulation establishing a 14-day period during which interested parties can present information on pending wage stabilization cases, he said, and the A.G.C. has organized a procedure for sending information to chapters.

Marshall Outlines Contractors' Problems to A.F.L.

» **THE PRINCIPAL** problems confronting general contractors in the mobilization program were outlined to the Building and Construction Trades Department, American Federation of Labor, last month by A.G.C. Assistant Managing Director J. D. Marshall.

"There is one outstanding thing I have always found about the A.F.L. building trades, and that is that they have always felt that the industry must prosper before their men can

prosper, that the employer must make reasonable profits or else their men will not be prosperous. For that reason I know of your mutual interest in many of the problems that our contractors throughout the country encounter."

In another address at the convention, Rear Admiral Joseph J. Jelley, Chief of the Bureau of Yards and Docks, announced that a new policy is being formulated to permit accredited union representatives of contrac-

tors' employees to be granted permission to enter naval shore stations for the purpose of visiting the commanding officer or his representatives to discuss and resolve matters of mutual concern, or problems relating to union activities on the station, and also to discuss conditions of employment or grievances with contractors. He added:

"At the same time we are trying to devise a better system of settling our differences on a local level. Local military commanders must recognize that union representatives have legitimate interests to protect and a right to discuss any incident where they feel union interests have been infringed. You should be afforded an opportunity to consult with our commanders or their representatives with a view to adjusting difficulties or complaints and to aid in the maintenance of standards of employment which have been agreed upon by your contractors."

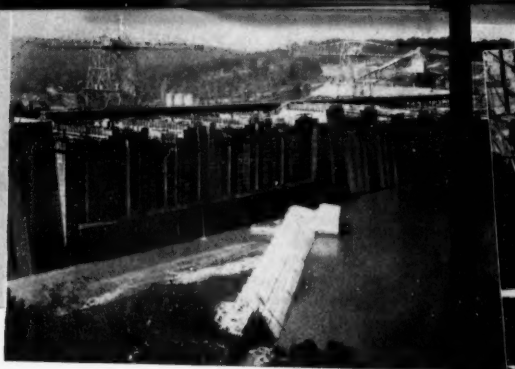
In his address, Mr. Marshall said there was no magic formula for improving the relationships between general contractors and the unions, but that where there were mutual problems or difficulties they could be solved by the exchange of information, hard work and patience.



The Central and Northern California Chapters of The Associated General Contractors of America were hosts at a luncheon given in San Francisco last month for delegates to the 44th annual convention of the Building and Construction Trades Department. In the picture, left to right: John F. O'Connell, director, Northern California Chapter; Richard J. Gray, president of the Department; A. E. Holt, president, Northern California Chapter; and Joseph D. Keenan, secretary-treasurer of the Department.

Dam the rivers.....

and BLAW-KNOX helped them do it!



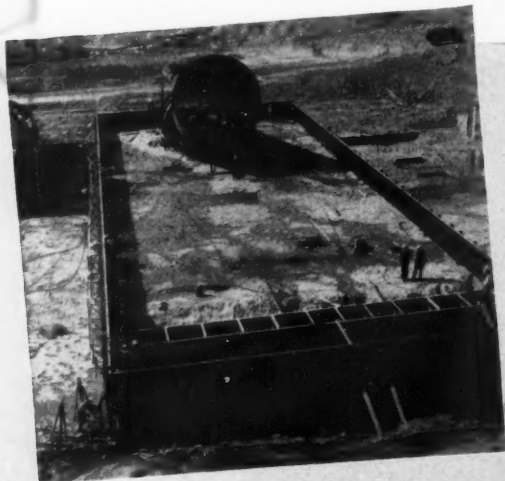
WHENEVER there's a river to be dammed, it's a good bet that Blaw-Knox Forms and forming methods will be used. *2 out of every 3 big dams built since 1945 have been constructed with Blaw-Knox Steel Forms!*

One of the many reasons for this acceptance is the Blaw-Knox engineering know-how which is available, without obligation, from the blueprint stage to the final pour. Blaw-Knox engineers will study your job, recommend the best form design. They will help you simplify your forming methods and can often save money by

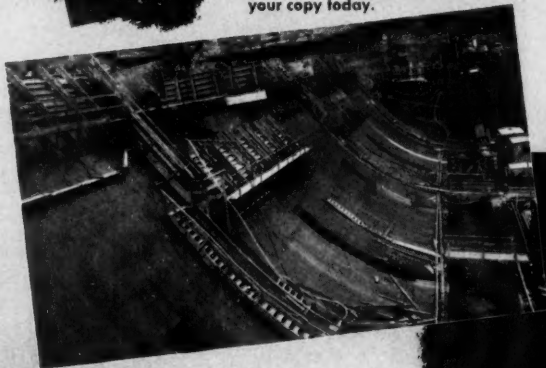
eliminating unnecessary operations or materials.

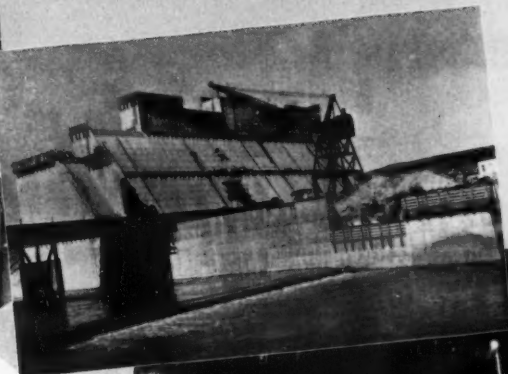
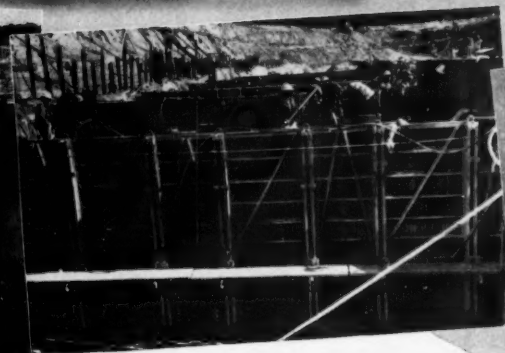
Blaw-Knox engineers are always on hand for consultation to help you solve unusual or costly concreting problems. Their knowledge of practical forming methods is the result of over 40 years Blaw-Knox experience in building steel forms for concrete jobs of all kinds.

... Whether it's placing concrete for big dams or small sewers, simple or tough projects... you'll get the job done faster and at lower cost when you use the Blaw-Knox job-proved Steel Form System. Write for details today.



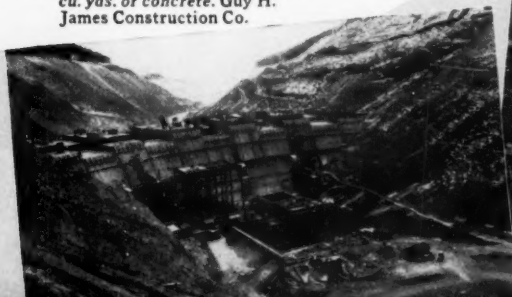
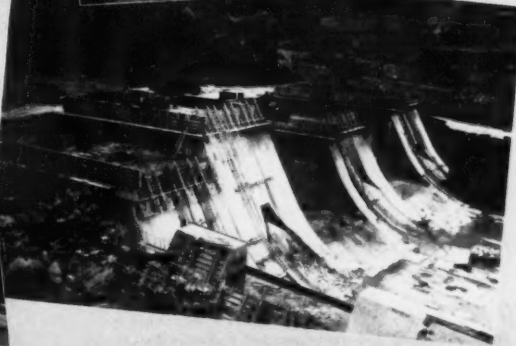
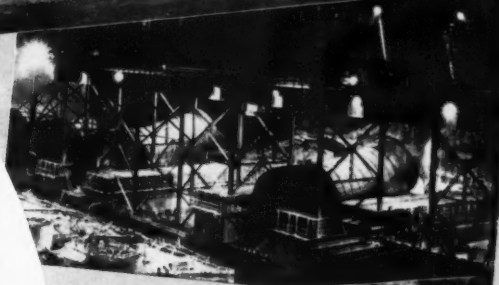
BULLETIN 2035 contains special design suggestions which may save money on your concreting jobs, large or small. Write for your copy today.





TYPICAL DAMS BUILT with BLAW-KNOX STEEL FORMS

- Chief Joseph Dam—Washington. 820,000 cu. yds. of concrete. Chief Joseph Builders
- East Sidney Dam—New York. 145,000 cu. yds. of concrete. The Savin Construction Corporation
- Bull Shoals Dam—Arkansas. 2,100,000 cu. yds. of concrete. Ozark Dam Constructors
- Auburn Dam—Pennsylvania. Yardage figures not available. The Arthur A. Johnson Corporation
- Buggs Island Dam—Virginia. 361,000 cu. yds. of concrete. Jones-Tompkins-Wright
- Whitney Dam—Texas. 550,000 cu. yds. of concrete. L. P. Reed, Inc. and Martin & Grace, Inc.
- Mount Morris Dam—New York. 690,000 cu. yds. of concrete. Mount Morris Dam Builders.
- Woodruff Dam—Florida. 243,840 cu. yds. of concrete. Perini, Walsh, Mills & Blythe Bros. Construction Companies
- Harlan County Dam—Nebraska. 340,000 cu. yds. of concrete. Harlan Construction Company
- Canyon Ferry Dam—Montana. 440,000 cu. yds. of concrete. Canyon Constructors
- Hungry Horse Dam—Montana. 3,000,000 cu. yds. of concrete. General-Shea-Morrison
- Wolf Creek Dam—Kentucky. 1,250,000 cu. yds. of concrete. The Jones-Wright Company
- Angostura Dam—South Dakota. 230,000 cu. yds. of concrete. The Utah Construction Company
- Conemaugh Dam—Pennsylvania. 331,000 cu. yds. of concrete. The Savin Construction Corporation
- Fall River Dam—Kansas. 130,000 cu. yds. of concrete. Arcole-Midwest Corporation
- Detroit Dam—Ore. 1,450,000 cu. yds. of concrete. Consolidated Builders, Inc.
- Spavinaw Dam—Okla. 119,700 cu. yds. of concrete. Guy H. James Construction Co.



BLAW-KNOX

Division of Blaw-Knox Company • Farmers Bank Bldg., Pittsburgh 22, Pa.
New York • Chicago • Philadelphia • Birmingham • Washington • San Francisco

How to get MORE WORK from your "Cat" Motor Grader!

HERE's the situation in a nutshell. The speed, versatility and big work capacity that have made "Caterpillar" Motor Graders an essential construction tool have also made them necessary to the defense effort. As military orders must be filled first, you may not be able to obtain prompt delivery of new machines. So it will pay you to plan *now* to get greater production and longer wear from your present equipment.

"Cat" Motor Graders are ruggedly built for long life. But good care on your part can lengthen that life span by thousands of extra service hours. Here's how:

- 1 Follow the recommended *operating care* in your Operator's Instruction Book. Read and reread it.
- 2 Observe the *maintenance* suggestions in the Operator's Instruction Book. They're down-to-earth — experience has proved them practical and effective.
- 3 Anticipate your future replacement parts needs by seeing your "Caterpillar" dealer about them *now*. Don't wait until wear gets beyond repair — many a part can be rebuilt if serviced in time.

You're in good hands when you work closely with your "Caterpillar" dealer. He is anxious to help you solve your problems. He has the skilled mechanics and service facilities to help you lick them and keep your equipment in shape.

CATERPILLAR TRACTOR CO. • PEORIA, ILLINOIS

You're the Doctor

Preventive maintenance is good medicine for long life. Your Operator's Instruction Book is invaluable in the fight to conserve machine life. Follow the operation, lubrication and maintenance recommendations.

When wear is evidenced in cutting edges, gears, tires or engine, see your "Caterpillar" dealer. He can help you prolong the life of your motor grader. Your motor grader is essential—don't abuse it!



Fast worker—reliable, too! This "Caterpillar" Diesel No. 12 Motor Grader is one of thousands that help construction men meet their contracts on schedule. An essential earthmoving tool, it stands up under tough going — handles easily. As a military tool, it's essential for airport construction and maintenance, road construction, the establishment of bases and scores of other jobs.

CATERPILLAR

REG. U. S. PAT. OFF.

**DIESEL ENGINES • TRACTORS • MOTOR GRADERS
EARTHMOVING EQUIPMENT**

» APPROXIMATELY 100 building construction men attended the building contractors' roundtable session at the A.G.C. Midyear Board Meeting to hear reports by the national staff and to discuss problems of the day.

Highlighted on the agenda were such subjects as apprentice training, labor developments, controlled materials and modular coordination. Building contractors from all over the nation quizzed their national leaders about steel supplies and government regulation of building.

H. C. Turner, Jr., chairman of the Building Contractors' Division, clarified the critical materials situation during the roundtable discussion and answered questions on OPS provisions. J. D. Marshall, assistant managing director, covered wage stabilization developments and "area wage" problems.

Some discussion of the scrap drive now in progress was broached and the delegates recommended that A.G.C. chapters support the movement.

W. A. Snow, division manager, informed the meeting of recent joint committee actions, particularly those with the American Institute of Architects on bid depositories and with the Producers' Council.

Fred Fisher, chairman of the Apprenticeship Committee, told the builders that, in the face of the shortage of bricklayers, apprentice train-

Builders Tackle Problems at A.G.C. Meet

• Hear Pleas for Apprentice Training and Scrap Drive

ing is of the utmost importance.

"I can't help but believe," he asserted, "that each one in this room, manager, secretary, or contractor, has a responsibility. He must do something for the apprenticeship program. If we, as general contractors, get behind it and develop some mechanics, we won't have to worry two or three years from now about the bricklayers."

Other contractors spoke of success with local training programs. Allan E. Gifford, executive secretary, A.G.C. of Massachusetts, gave A.G.C. con-

tractors credit for bringing up the supply of bricklayers in that area.

The subject of modular coordination in building construction came up and contractors' problems with the technique were aired. Several reported difficulties of adjustment, such as obtaining specified materials.

A.G.C. members serving on government advisory committees, the officers and the national staff were commended during the course of the session for their efforts to keep the industry informed.

DPA Pushes Steel Conservation Program

• Design Standards and Substitute Materials Given Builders

» THE DEFENSE Production Administration is strongly urging adoption of a steel conservation program to "allow for more construction in 1952 with the materials available."

As a first step, the agency has recommended use of seven design standards which it considers acceptable to most engineers, architects, building officials and municipalities. Six of the proposed manuals are those of trade associations and deal with materials requirements and specifications for

structural steel, reinforced concrete, lumber, steel joists, light gauge steel and electrical work. The materials requirements for plumbing work are embodied in the HHFA's "National Plumbing Code."

Seventeen other government agencies are adopting DPA's conservation recommendations in their construction plans. They are the Departments of Army, Navy, Air Force, State, Commerce, Interior and Agriculture and the Munitions Board, Atomic Energy Commission, General Services Administration, Housing and Home Finance Agency, Veterans Administration, Bureau of the Budget, Civil Defense Administration, Economic Cooperation Administration and National Production Authority.

Wilson Urges Savings

Recommending adoption of the conservation techniques by architects, contractors and engineers, Defense Mobilizer Charles E. Wilson urged the most frugal use of critical materials.

"I hope," he said, "that the Defense Production Administration will continue to push the work on conservation in construction. This is a matter about which I feel strongly and an operation which I believe will be vigorously supported by both industry and labor."

Dozens of recommendations for use of alternate materials were also included in the memorandum.



Leading the building contractors' roundtable discussions were (left to right): W. A. Snow, A.G.C. Building Division manager; H. C. Turner, Jr., chairman; and W. Murray Werner, Shreveport, La., vice chairman.

(DPA list of design standards is on next page.)

Increasing Apprentice Enrollment Stressed

• Apprenticeship Committee Notes Decrease of Men in Training

During the first eight months of 1951, the number of construction apprentices in training dropped 11%.

The Governing and Advisory Boards were told that much more effort would have to be expended by both management and labor to increase the number of apprentices who enter training annually, if the construction industry were to maintain its high efficiency and production.

Activities which the Apprenticeship Committee considered well aimed at channeling more young men into apprentice training programs were presented to the boards by Chairman Fred Fisher, Fisher Construction Co.

The Houston contractor outlined the following:

1. Draft deferment for apprentices who have been in training more than six months has been approved by the Labor Department and is now being considered by the Selective Service System. The committee recommended that the provision that the number deferred cannot exceed 20% of the

total number of apprentices in training be applied on a local rather than a national basis.

2. More publicity should be given to the opportunities which the construction industry offers young men. This point can be effectively presented in talks to high school groups, civic clubs and other local organizations.

3. Contests similar to the one held recently in Minnesota among bricklayer apprentices cultivate a wide interest in the trade and expand recognition of the apprentice training program as a whole.

4. Also valuable as a mode of encouraging enlistment of young men are area meetings like the Third Southern Apprenticeship Conference held in Memphis under the chairmanship of W. W. MacLaughlin, Jr., secretary-manager of the Memphis Chapter. The committee noted, with much favorable comment, the conference feature of holding separate craft meetings at which members could discuss their particular problems.

5. As another important step in the construction industry's efforts to reduce accidents on the job, apprentice training programs should include courses on accident prevention.

6. Because local apprentice programs which include a full time coordinator have been so successful, all local programs should include the services of a coordinator.

The committee advised that all general contractors become well acquainted with the federal regulations which alone govern the employment of apprentices on federal and federal-aid projects before submitting their bids.

Chapter and branch managers of the A.G.C. were reminded of the \$100 Apprentice Training Activity Award given annually to the one whose chapter had the outstanding record in this field.

As a special feature, Alvah Libbey, Libbey & Libby, Minneapolis, arranged for a showing of a movie taken in Minnesota, covering training of bricklayers.

The set of design standards which DPA urged builders to adopt in line with their conservation program are:

"1. Where it is definitely necessary to design with structural steel, the design should be based on the "Specification for the Design Fabrication and Erection of Structural Steel for Buildings" (Revised June 1949) of the American Institute of Steel Construction, 101 Park Ave., N.Y.C.

"2. Where the design is with lumber of known grade and kind its design should be based on the "National Design Specifications for Stress-Grade Lumber and Its Fastenings" (Revised 1950) of the National Lumber Manufacturers Association, Washington, D. C.

"3. Where it is advisable to design with reinforced concrete the design should be based on the "Building Code Requirements for Reinforced Concrete" (A.C.I. 318-51) of the American Concrete Institute, 18263 W. McNichols Rd., Detroit 19, Mich.

"4. All plumbing work should be laid out and scheduled to use materials not in excess of the requirements set forth in the proposed "National Plumbing Code" (June 1951) issued jointly by NPA and the Housing and Home Finance Agency.

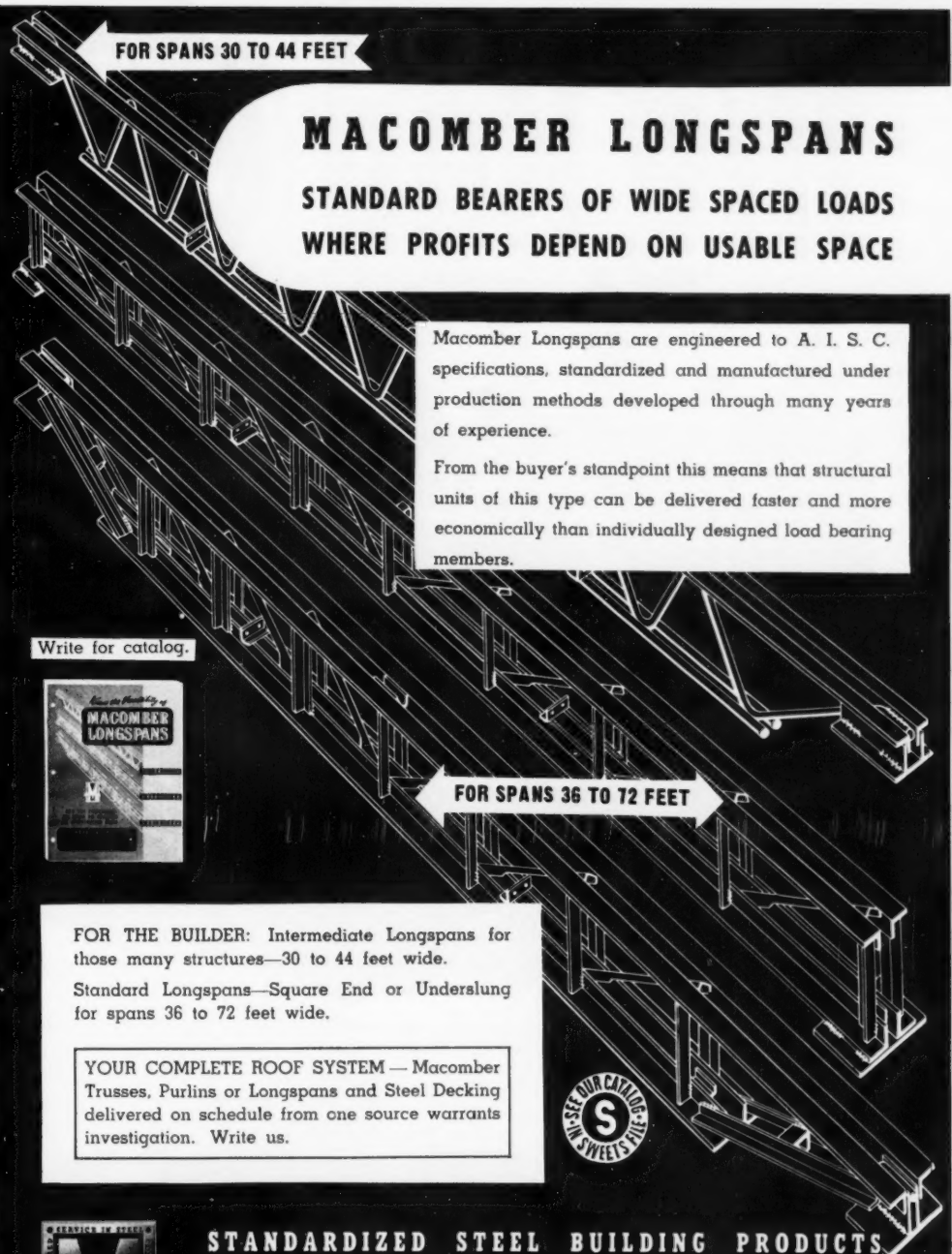
"5. All electrical work should be laid out and scheduled to use scarce materials not in excess of the requirements set forth in the "National Electrical Code" (1947 edition) of the National Board of Fire Underwriters, 85 John St., N.Y.C.

"6. When the design is with light gauge steel made of cold-formed sheet or strip less than 3/16" in thickness, it should be based on the "Light Gauge Steel Design Manual" (January 1949) of the American Iron and Steel Institute, 350 Fifth Ave., N.Y.C.

"7. When floor or roof systems are designed with open web steel joists, the design should be based on the "Standard Specifications for Open Web Steel Joist Construction" (revised Oct. 20, 1949) of the Steel Joist Institute, 1346 Connecticut Ave., N. W., Washington 6, D. C.

This 50-ft. high erecting stage, which moves on wheels, is a new German device to speed up building construction. A platform stretching over the entire crane can be moved up and down electrically. Two small cars hanging on I-supports from this platform are manned by two bricklayers and can be moved in any direction desired. Small moving cranes suspended from the same platform shift bricks and other building materials into position. It is claimed the innovation makes it possible to build a two-story house in six days, with only eight workers. Here, it is shown in operation near Hannover, Germany.





FOR SPANS 30 TO 44 FEET

MACOMBER LONGSPANS

STANDARD BEARERS OF WIDE SPACED LOADS
WHERE PROFITS DEPEND ON USABLE SPACE

Macomber Longspans are engineered to A. I. S. C. specifications, standardized and manufactured under production methods developed through many years of experience.

From the buyer's standpoint this means that structural units of this type can be delivered faster and more economically than individually designed load bearing members.

Write for catalog.



FOR SPANS 36 TO 72 FEET

FOR THE BUILDER: Intermediate Longspans for those many structures—30 to 44 feet wide.

Standard Longspans—Square End or Underslung for spans 36 to 72 feet wide.

YOUR COMPLETE ROOF SYSTEM—Macomber Trusses, Purlins or Longspans and Steel Decking delivered on schedule from one source warrants investigation. Write us.



STANDARDIZED STEEL BUILDING PRODUCTS

MACOMBER • INCORPORATED

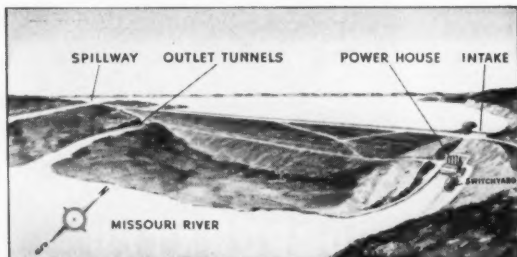
CANTON, OHIO

V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK

Big Red



BREAKIN' SHALE ON THE BERM. TD-24 pulls a 60,000-lb. capacity spike-tooth roller, evening surface of uncompacted berms. Five TD-24s are literally "all over the place" on this big project's toughest jobs.



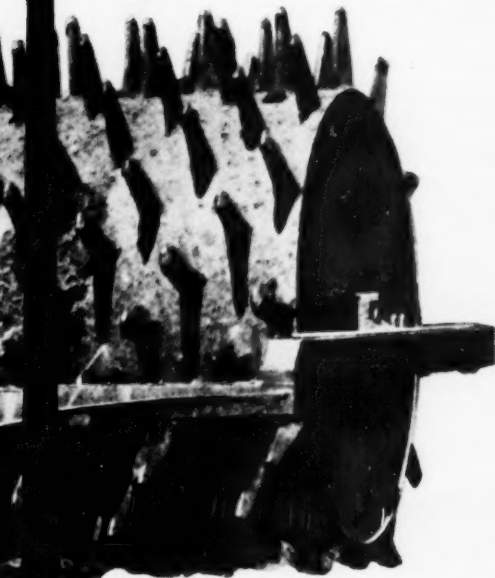
ARTIST'S CONCEPTION OF OAH DAM at completion in 1959. Power works above will provide 420,000 kw with 6 generators, twice as much power as South Dakota produces at present. 78 million cubic yards of earth are involved.



BIG RED REALLY KEEPS THE LOADS MOVING—Whether it's pushing or pulling, TD-24's great power and speed enable it to move more pay dirt faster.



Rolls Out the Wrinkles on Oahe Dam



Five International TD-24s star on dam project, harnessing the "Big Muddy," creating a 250-mile lake and irrigating two million South Dakota acres.

Contractor's superintendents, dirt boss and skippers at the big Oahe Dam project on the Missouri River near Pierre, South Dakota—all will bend your ear about "Big Red."

Operator Troy Hood goes on record: "Cutting on a curve, TD-24's Planet Power steering keeps both tracks pulling so you keep all power working to do a faster job."

Here's another TD-24 skipper, Jack Rank: "Son-of-a-gun really has got the power. Much easier to handle than other tractors, easier to work, easier on me. I'm on it 10 hours a day, so I know."

Dirt Foreman Sam Crawford backs them up: "TD-24 can't be beat. We haven't found anyplace it won't go."

John P. Beck, general superintendent for subcontractor Campbell-Collins, has high praise for "Big Red": "We're well satisfied with our TD-24s. Their speed in reverse certainly is an advantage as no time is lost between pushing runs behind our ten scrapers."

There they are—solid reasons for TD-24 preference by the men who move the dirt.

Take their word for it. See your nearest International Industrial Distributor for the facts behind enthusiastic TD-24 performance reports making the rounds. Find out how he backs up the power he sells with full stock of parts, factory-trained mechanics, and the latest service equipment, to keep your equipment in the high output bracket.

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS



"WE LIKE TD-24 POWER," says John P. Beck of Campbell-Collins (left). Looking on are F. A. Blecker of Guy H. James Co., prime contractor; L. G. Leavitt, area engineer; and F. P. Evans, office engineer.



INTERNATIONAL
HARVESTER

INTERNATIONAL

POWER THAT PAYS



Sometimes, as Mrs. Malaprop said:
COMPARISONS ARE ODOROUS

We have always felt that product claims which attempt to establish merit by dealing in generalities are of little or no value in advertising.

To simply say that Form Ties are "above average in excellence" is in our opinion merely a "puff" rather than a service to the reader.

Richmond tries to make its advertising specific both as to functions and claim. That is why our ads so often carry diagrams showing precisely how and why Richmond products save time—money—labor... why we publish specific safe load figures and show the actual margin of safety as established by independent ultimate load tests... and why our "brags" are invariably confined to such demonstrable statements as: "Richmond pioneered the development of prefabricated form tying devices and offers you the best known and most widely used products of their kind in the field."

SOME OF THESE ADS
YOU READ DON'T
TELL YOU NOTHIN.

YUP—AND IT'S LIKE THE OLD
MAN SEZ—ANYBODY CAN
MAKE CLAIMS—IT'S
WHAT THE STUFF
DOES THAT COUNTS.

Get your "Screw" or "TY"
button—write to John Cushing
at Richmond, 816 Liberty Ave.,
Brooklyn 8, N. Y.



RICHMOND KNOW-HOW—DEPENDABILITY—SERVICE—ESTIMATES & JOB PLANNING

» A ROUNDTABLE of heavy construction and railroad contractors at the A.G.C. Midyear Board meeting discussed such subjects as recent labor developments, the price regulation situation, contract specifications, government bid bond provisions and equipment rental problems.

J. D. Marshall, division manager, pointed out that in defense projects requiring building, highway and heavy operations there was again the threat that labor conditions of heavy work could be upset.

Price Regulations Unsuitable

Invited by Chairman George Heller, Johnson, Drake & Piper, Inc., Minneapolis, to explore developments in price regulations, Mr. Marshall told of efforts by the national association to alleviate the unsuitability of OPS Regulations 1 and 34 for the construction industry. Enforcement officers, he said, recognize their impracticability and efforts are being made now to take all public works from under their provisions.

J. M. Sprouse, assistant division manager, reported activities of the Task Unit for Corps of Engineers Specifications in the absence of Chairman J. A. Henderson, United Construction Co., Winona, Minn.

Heavy Contractors Point Up Problems

• Debate Labor, Contracts, and Bid Bond Provisions

Mr. Henderson's committee reported that the Corps had considered A.G.C. recommendations favorably and revised an Army construction contract form to eliminate unworkable conditions.

The Task Unit for Bureau of Reclamation Specifications reported harmonious meetings with the bureau and adoption of several of the unit's suggestions. Chairman George C. Looz, Stolte, Inc., Oakland, said that dam building members should soon know the outcome of requests to allow increased height of pour in dam construction. The bureau has expressed appreciation of letters from contractors advocating the move.

Activities of the Bureau of Yards and Docks Task Unit were reported by Mr. E. P. Coblentz, McLean Contracting Co., Baltimore. The unit is studying bidding problems with the bureau.

Card-Carrying Superintendents

Spirited discussion arose from the introduction of a problem by J. E. Latta Construction Co., St. Louis, Mo.

He disclosed that a carpenter's union in St. Louis was insisting that the superintendent on one job, the key man, must carry a union card. Because the carpenter foreman would not take order from a non-union superintendent, it sometimes necessitated bringing another superintendent onto the job. Other committee members foresaw that the superintendent, who must direct not only carpenter work, but iron work, concrete work and common labor, could just as unreasonably be forced to carry cards in those other unions.

Bid Bond Form Described

Past President Adopt Teichert, Jr., A. Teichert & Son, Inc., Sacramento, Cal., chairman of the Insurance and Bonds Committee, described provisions of the government's new bid bond form.

The current status of the Government Renegotiation Board was outlined by C. S. Embrey, administrative assistant. He emphasized that the national staff is following the development of the board closely.

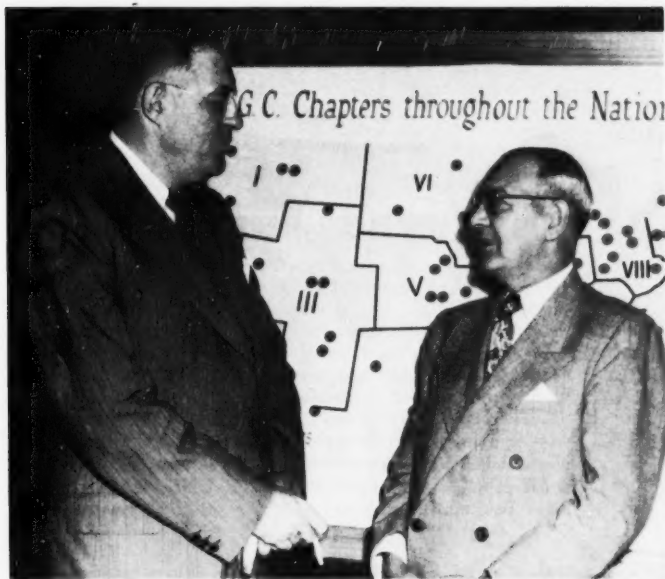
A committee is still endeavoring to obtain changes in the Department of Defense equipment rental schedule, Mr. Sprouse reported. The association has recently issued an addendum to its ownership expense manual, advising contractors to consider the increased cost of equipment in setting rental rates.

Davis Dam Near Completion

The last major construction contract for Davis Dam and power plant on the Colorado River near Kingman, Ariz., has been awarded for a stilling basin for the dam's spillway.

The Grafe-Callahan Construction Co., A.G.C., Los Angeles, will undertake the work on a low bid of \$2,731,882. It will have 560 days to complete the job.

Initial operation of the 225,000-kilowatt power plant at Davis Dam in January, 1951, was considered the most significant hydroelectric power event of the year. It is one of four key structures built by the Bureau of Reclamation for control and multiple-purpose use of the turbulent Colorado River.



Heavy Construction Division officials, Edward P. Coblentz, vice chairman, (left) and George Heller, chairman, (right) meet at the Midyear Board meeting.

AGGREGATE

14,472 TONS!

**The Peak Day's Production
at Concrete Materials & Construction Co.
—Average Daily Production
600 TONS PER HOUR!**

THIS CEDARAPIDS DOUBLE IMPELLER IMPACT BREAKER is really turning out the tonnage! On their New Jersey Turnpike contract, Concrete Materials & Construction Co. put through 14,472 tons of aggregate . . . 800 truck loads, at 16 to 20 tons per load . . . on their peak day, a 20-hour period when the surge pile was down and plenty of trucks were available for feed. That's a 724 ton per hour peak production average!

Originally scheduled to turn out around 400 tons per hour, the 5050 Double Impeller Impact Breaker in this Concrete Materials plant is consistently averaging more than 600 tons per hour. No wonder more and more contractors are depending on the bonus production of Cedarapids Double Impellers!

To meet today's demand for AGGREGATE UNLIMITED, and assure yourself of opportunity unlimited for profit, see your Cedarapids distributor today for the equipment you need to make your plant a real producer.



DOUBLE IMPELLER IMPACT BREAKERS

Get ready for the *big* jobs with a Cedarapids Double Impeller Impact Breaker in your plant. It's your assurance of maximum output of the cubical shaped aggregate required in so many specifications today. Because so much of the material is broken in suspension, you get an extremely high ratio of reduction at extremely low power costs. Exceptional tonnage with a minimum of connected horsepower! And you save on your plant set-up because you can eliminate much accessory equipment such as secondary crushers, conveyors, etc. You can get *immediate delivery* on Double Impeller Impact Breakers to give you OPPORTUNITY UNLIMITED right now! Four sizes available.

THE IOWA LINE

of Material Handling Equipment Includes: ROCK AND GRAVEL CRUSHERS • BELT CONVEYORS • STEEL BINS • VIBRATOR AND REVOLVING SCREENS • UNITIZED ROCK AND GRAVEL PLANTS • FEEDERS • PORTABLE POWER CONVEYORS • PORTABLE AND STATIONARY STONE, GRAVEL AND SAND PLANTS • REDUCTION CRUSHERS • BATCH TYPE AND VOLUMETRIC TYPE ASPHALT PLANTS • DRIERS • DUST COLLECTORS • HAMMERMILLS • WASHING PLANTS • VIBRATING SOIL COMPACTION UNITS • DOUBLE IMPELLER IMPACT BREAKERS

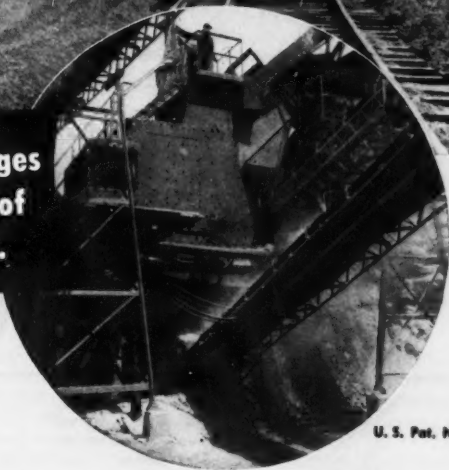
UNLIMITED

for the New Jersey Turnpike



**BINKLEY BROS. PLANT averages
250 to 300 tons per hour of
3 1/2" minus material . . .**

In the Bradford Hills Quarry near Downingtown, Pa., one 5050 Double Impeller Impact Breaker, owned by Binkley Bros., is taking quarry rock . . . material passing a 50" opening . . . reducing it to meet specifications for small sized cubical aggregate, and doing it in one pass at a rate of 250 to 300 tons per hour.



U. S. Pat. No. 2373691
2486421

IOWA MANUFACTURING COMPANY

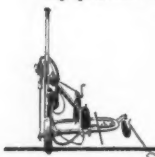
Cedar Rapids, Iowa, U.S.A.

for **DRILLING POWER** and **UNLIMITED VERSATILITY**

you can't beat this New **FM-3 WAGON DRILL**

Most construction and mining men are familiar with the famous X-71 WD Rock Drill. Its drilling speed and hole cleaning ability on deep holes are recognized wherever Wagon Drills are used. It is the only drill made especially for Wagon Drill service.

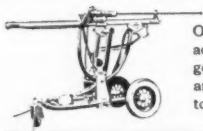
To permit even further utilization of the power and reliability of this drill, we introduce a brand new mounting known as the FM-3. It incorporates a new type of lifting mechanism and a rugged yoke that permits easy drilling in any position encountered in modern rock excavation.



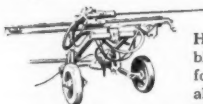
Notice how the swivel wheels are turned and how the drill extends beyond wheels for line hole work against a face.



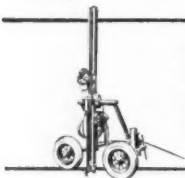
And how low the yoke can be lowered for efficient toe hole drilling.



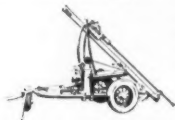
Or how, by a handy crank actuating a powerful worm gear arrangement, the yoke and drill can be easily raised to highest drilling position.



Here's an exceptionally stable and easily moved set up for drilling hole after hole along a face.

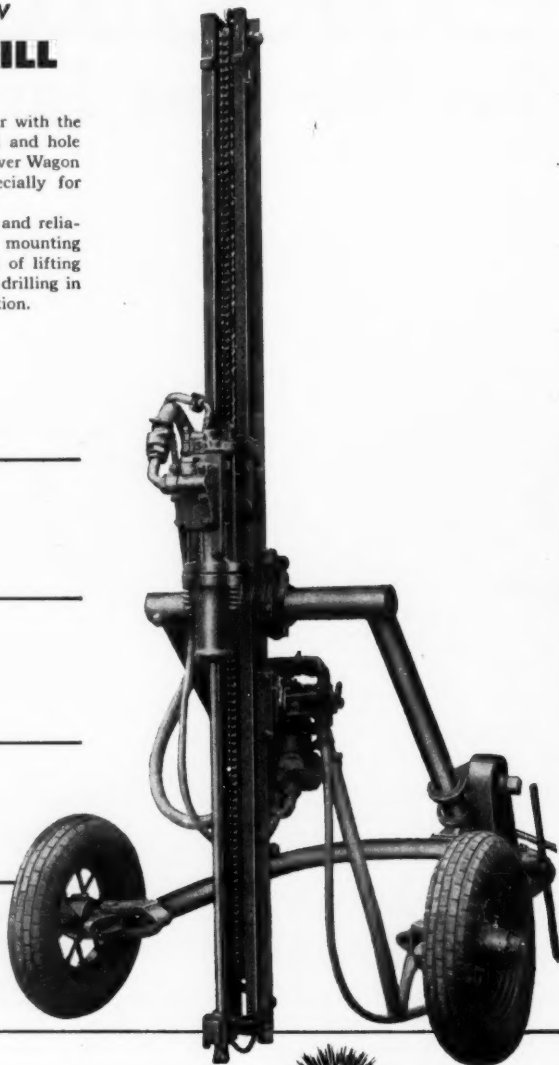


What could be more convenient for line hole work? It takes but a minute to swing the swivel mounted wheels through a 90 degree angle.



And for steeper angle drilling, here's another easy set up. All controls are at the operator's fingertips.

Remember Ingersoll-Rand Drills are sold and serviced by men who know rock drilling. Take advantage of this highly trained and skilled service. There is an Ingersoll-Rand branch office and distributor near you. Write or call today.



Ad 596-S

Ingersoll-Rand

11 BROADWAY, NEW YORK 4, N. Y.

THE CONSTRUCTOR, OCTOBER 1951

» HIGHWAY OFFICIALS appeared before a Senate subcommittee on public roads last month to attack the recent National Production Authority highway steel slash.

Although the Bureau of Public Roads had requested a steel allotment of at least 591,000 tons for the fourth quarter, NPA approved only 250,000 tons. Besides, witnesses testified, approvals were given too late for hope of squeezing even that amount from the already-scheduled output of the steel mills.

Highway Officials Hit NPA Steel Cut

• Senate Hearing Investigates Short Allocation for Roads

Thomas H. MacDonald, Commissioner of Public Roads, testified before the committee that the inability of highway contractors to secure structural steel has delayed numerous projects. A weekly statement of delays due to non-delivery of steel showed 576 projects held up recently.

Of a total required delivery of 152,-

000 tons of third quarter steel, 110,000 have been delivered.

Mr. MacDonald contended that NPA's classification of reinforcing steel as a Class A product for the fourth quarter and including it in the bureau's allotment reduced further the amount of structural steel highways would get.

Under questioning, he stated emphatically that the 250,000 ton allocation was not adequate to even complete highway projects already under way. The bureau, he said, had asked to have it raised to 400,000 tons.

Anderson Asks Fair Share

J. A. Anderson, president of the American Association of State Highway Officials and State Director of Highways for Virginia, testified in turn that the highway program should not be weakened. He declared that roads were not only defense-supporting, but essential civilian projects, and, as such, were worthy of a fair share of steel.

The contractor's problems in the race for critical metals were spelled out by the A. A. S. H. O. official.

"There are innumerable examples of projects placed under contract in mid-1950. Steel was not forthcoming as planned. Authorizations were given to provide DO ratings. This failed to produce the steel. In the third quarter these orders were re-validated only to fail to find booking room. Now the fourth quarter finds the situation still unimproved. The contractor who thought himself the successful bidder now looks askance at the thought of success. His costs are up, labor in the skilled trades is scarcer, and the terms of his contract make no provision for such increases, nor does the contract carry a cancellation clause."

NPA Chief Testifies

Called as a witness, NPA Administrator Manly Fleischmann declared that the steel requested for highways in 1952 was out of line with actual use in 1950 and estimated use in 1951. It would require 20% of the structural steel output available to the entire country, he said.

Mr. MacDonald, recalled before the committee, said that the Bureau of



Shown discussing highway problems at the Chicago meeting are A. N. Carter, division manager, and Vice Chairman F. W. Heldenfels, Jr.

Highway Contractors Board Session Lively

• Steel Slash and Confusing Wage Rates Draw Sharp Comment

» A REPRESENTATION of highway contractors from all over the U. S. met at the recent A.G.C. Mid-year Board meeting to wrestle with some of the current problems facing the industry.

The fourth quarter steel slash by the National Production Authority in the face of greater-than-ever road needs and other unrealistic federal pronouncements drew lively debate.

Vice chairman F. W. Heldenfels, Jr., Heldenfels Bros., Corpus Christi, Tex., acting for Chairman E. J. Maupin, Jr., Fallon, Nev., described the roundtable discussions as "the largest and most spirited in recent years."

Equipment rental rate schedules now in use by the Department of Defense came up for a measure of criticism. Delegates present suggested that the national staff press its ef-

forts to have the schedules improved. Compaction specifications on airport runways, price controls for the industry, labor developments, the Rural Electrification program and the federal airport construction program were all discussed.

A. N. Carter, division manager, reported progress by A.G.C. highway chapters in seeing their states adopt termination clauses. He also told the highway contractors that strong efforts should be made to have maintenance work put under contract. It is, he said, a very fertile field—that 40% of all highway funds last year went into maintenance operations.

The dilemma of area wage rates was aired with delegates quizzing J. D. Marshall, assistant managing director, about local complications under the wage stabilization regulations.



A road crew lays the final asphaltic-concrete surface on a stretch of the New Jersey Turnpike—108 miles of which will be opened next month.

Public Roads had requested that highways be classified as industrial facilities. In that way, small projects using under 25 tons of steel could obtain the metal faster. He quoted the results of a spot check showing that the average requirement of such jobs was only 11 tons and they took only 3.6% of the road use of steel.

House Gets Resolution

Driving the current highway steel controversy out into the open, Congressman T. B. Fugate of Virginia has introduced a resolution in the House, calling upon NPA and DPA to review their allocation procedures.

The resolution has been referred to the House Committee on Banking and Currency which is soon to hold hearings on the National Production Act.

J. A. Anderson, commissioner of highways in Virginia and president of the A. A. S. H. O., is urging fellow highway officials to transmit their dilemma to Congressmen.

In addition, he asked highway departments to start a record of contractors' requests and requirements and their successes or failures in obtaining steel. In that way, he said, NPA could be "held to its promises." It would take close cooperation between contractors and engineers.

Missouri Road Users Polled

The Missouri State Highway Department will be ringing doorbells all this year to ask people how they use local highways.

The survey, during which interviewers will visit over 10,000 homes in 29 counties, should reveal facts necessary for planning new roads, Missouri officials hope.

The poll is being spread over the year to show seasonal variation, and towns of all sizes are included in the survey. Vehicle owners will be questioned about regular local driving as well as week-end and vacation trips.

Ohio Toll Road Plans Pushed

Construction of Ohio's new \$300 million toll road will probably begin next April, but only after a public hearing, according to Governor Lausche.

The Ohio Turnpike Commission is putting the finishing touches on recent reports, including one rejecting a new traffic flow proposal by engineers.

The engineers had recommended putting the fast moving traffic on outside lanes, instead of the usual inside lanes, to allow drivers leaving the highway for a gasoline stop or at an interchange to move into a wide parkway in the center of the divided highway with a minimum of accident hazard.

Highway Plans and Progress

A group of 170 investment banking houses has offered to serve as financial advisors to the Ohio Turnpike Commission when it issues \$300 million in bonds for the new toll superhighway.

Governor Stevenson, Ill., has vetoed a bill to create a state highway commission. The proposed commission, with a \$10,000 appropriation would draft an annual highway construction program and study construction methods and costs in other states. Stevenson said he had already approved a highway study commission and the state highway division is now required to submit a biennial construction program to each legislative session.

Kentucky is planning an expenditure of \$52 million for roads and bridges before next June 30.

A Massachusetts commission is studying the feasibility of a high-level bridge over Boston Harbor from the downtown section to East Boston.

Oregon road construction made possible by a \$42 million bond issue will begin as soon as plans and specifications are drafted by the state's engineers.

The Oklahoma attorney general ruled against highway department plans to switch farm-to-market road funds to primary state highways. The commissioners had hoped to transfer \$2 million of the one-cent gas tax money to primary road construction. Federal matching funds would thus have made \$4 million available.

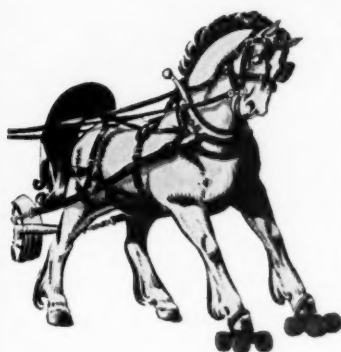
The last obstacle to sale of bonds to finance the \$21,250,000 Lower Tampa Bay Bridge was removed when the Voluntary Credit Restraint Committee approved marketing of the securities. A \$7,856,063 job remains for the final principal work on the 13-mile span.

Plans for a federal-state survey of a proposed Mississippi River bridge or tunnel crossing at New Orleans have been revealed by the Louisiana State Department of Highways.

The state agency earlier signed an agreement with the mayor of Gretna, across the river from New Orleans, for a \$200,000 survey for a proposed \$44 million toll bridge.

No matter how you say it
It Comes Out the Same
 Last Year—This Year—Next Year

in 1940
 we said



A motor grader without power on the front wheels is like a horse with roller skates on his front feet.

in 1945
 we said

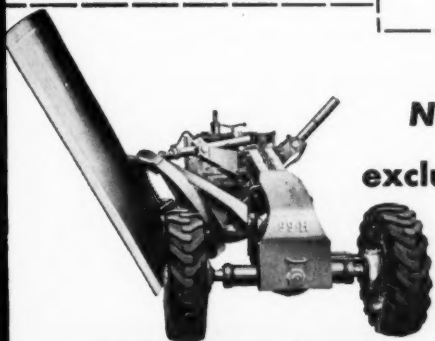


It's not in the cards for a grader with rear drive to equal the performance of one with All-Wheel Drive.

in 1950
 we said



Don't handicap your horsepower! No grader with a dead front end can possibly deliver maximum power-at-the-blade.



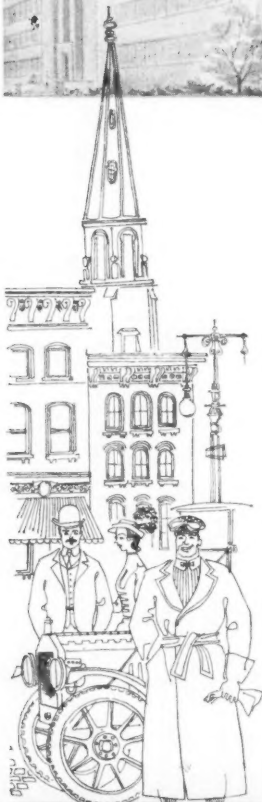
No two ways about it! Austin-Western's exclusive All-Wheel Drive goes more places . . . does more things . . . moves more material, farther and faster.

AUSTIN-WESTERN COMPANY, AURORA, ILLINOIS, U. S. A., Subsidiary of Baldwin-Lima-Hamilton Corporation

Austin Western



how a PAN changed building in America!



Thirty-nine years ago a young engineer asked himself this question—

"How can building be done better—faster—at lower cost?"

He looked at waste in the pouring of concrete floors over forms that remained in the structure forever.

Why not a removable form that can be used again and again, he reasoned . . . the way manufacturers mold things . . . or the way bakers shape cakes with pans that always are reused.

So an idea was born and from it stemmed a new method of building that changed the course of construction throughout the nation. Now concrete floors are molded around a removable pan shaped device known as a Ceco Meyer Steelform, used over and over from floor to floor as a building moves on to com-

pletion. Today big savings are made in men, money, material—thanks to an engineering concept as simple as a pan.

Creative Engineering has left its mark on all Ceco Manufacturing down through the years—in steel windows for every type of structure—in open web steel joists—or in products like metal lath—for Ceco builds small with the same precision it builds big.

And America has responded to this ideal of better engineered products—so much so that—THERE'S A CECO BUILDING PRODUCT SOMEWHERE IN EVERY SKYLINE OF THE NATION.

Whenever you build—whatever you build—use products, Ceco Engineered, for excellence. Fourteen strategically located plants will give you quick dependable service in every part of America.

CECO STEEL PRODUCTS CORPORATION

General Offices: 5601 West 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities



**CECO
STEEL**

In construction products **CECO ENGINEERING** *makes the big difference*

Reno Unit At Full Strength

An affiliated reserve unit, sponsored by the Nevada Chapter of the Associated General Contractors of America, has won recognition for Reno, Nev., as one of the few cities its size with a trained and equipped Engineer Construction Group Headquarters.

An Engineer Group is responsible for the supervision of 3,500 engineers, who, in turn, perform functions for approximately 40,000 soldiers in the field.

Full Credit to Lt. Col. Pine

Speaking of the Reno unit, the 365th Engineer Group Headquarters, Lt. Col. John N. McCarthy, executive officer, said, "I consider the organization, training and equipping of a unit of this type, particularly for a city the size of Reno, to be an outstanding accomplishment, and one in which not only Reno, but the entire State of Nevada may take a just pride. Full credit should be given the unit commander, Lt. Col. Edward L. Pine, and his staff of officers for the tremendous amount of work which has been accomplished within a brief period."

Organized in 1947, the new unit soon became "an important factor in western military activities," according to the Nevada State Journal. The present commander, Lt. Col. Edward L. Pine, is the secretary-manager of the Nevada Chapter, A.G.C.

385th Accorded Top Honors

An affiliated reserve unit, co-sponsored by the A.G.C. of Minnesota and the St. Paul District Engineers, has received high praise for its recent field training performance.

In a letter addressed to Col. Wilfred Darling, commanding officer of the 385th Engineer Construction Group, a senior Army instructor said the unit made an excellent showing.

Highest Score in State

The instructor, Col. Roland S. Henderson, said, "So far, the total score by your unit at camp is the highest made by any organization from this State. It is very gratifying to note that the Inspector regards the 385th as being the finest in the reserve program."

The State chapter has sent its own congratulations to the unit's officers and men.



Left to right: SFC Robert C. Shaughnessy, Cpl. Ronald A. Erickson, M/Sgt. William U. Nelson and SFC Ernest Novak jack a Bailey bridge panel into place as the transverse transom is clamped down to support the bridge deck. The men are members of the 433rd Engr. Const. Batt. recently returned from Camp McCoy, Wis.

Detroit Unit Ends Tough Field Training

• 433rd Engr. Const. Batt. Practices Bridge Building at Camp

» THE 433rd Engineer Construction Battalion, an affiliated Reserve Corps unit sponsored by the Detroit Chapter, recently completed two weeks of intensive field training at Camp McCoy, Wis.

During the encampment emphasis was placed on practical construction under field conditions. The two-week period found the 433rd erecting three types of bridges: the Bailey panel bridge, a floating pontoon bridge and a timber trestle bridge. The unit was complimented by Fifth Army inspectors on the speed and efficiency with which the various bridges were erected.

officers received training in layout of roads and warehouses for a supply depot, road construction, engineer reconnaissance, and maintenance of rigging and equipment. Tactical and combat training were also included in the tight two-week period. Officers and non-coms were especially familiarized with start-to-finish construction procedures of the type they might encounter on active duty.

Commanding officer of the unit is Lt. Col. Cecil F. Clark and executive officer is Maj. Remi O. Renier.

New District Established

Establishment of a new engineer district to be known as the Atlantic District has been announced by the Corps of Engineers.

Col. Charles T. Tench, formerly Fifth Army Engineer at Chicago, will be the district engineer. The new district will handle off-continent military construction projects in the Atlantic, from Bermuda north, except projects otherwise assigned.

Improves Tank Crossing

The major project completed by the battalion was the improvement of a tank crossing at a road junction within the camp area. The job included the construction of culverts and headwalls, ditching and road improvement. The battalion constructed "hasty" headwalls of logs on one culvert and permanent concrete headwalls on the other.

In addition, the 50 enlisted men and

700,000 yds. for Montana



...being moved by
C TOURNADOZER
and 3 electric-control
C TOURNAPULLS

New... C Tournapulls now have 18-ton Carryall increasing capacity to 15 yards. Prime movers with Tournamatic constant-mesh transmission and torque converters are also now available, as well as the "Roadsters" with their heavy-duty, sliding-gear transmission. Performance figures reported here were made with earlier 13.5-yard Roadster units.

J. Neils LUMBER CO.,

Libby, Montana, keeps a fleet of LeTourneau rubber-tired dirtmovers busy building truck roads and railroad grades on their extensive logging properties. On their latest project — a 20 to 34-ft. wide road and parallel railroad spur line near Rexford — Neils is using 3 electric-control C Tournapulls, a C Tournadozer, an FP Carryall, and a tractor-dozzer to move an estimated 800,000 cu. yds. of hardpan clay, rock, sand and gravel. The road will be used by the company to remove 100 million ft. of timber under government contract . . . then will revert to the United States Forest Service, which is engineering and supervising its construction.

741 pay yds. hourly on 600' cycle

Checked recently on a typical short, 300-ft., one-way haul, each of the high-speed Tournapulls was making 26 trips per hour. Loads in alluvial sand and gravel with Tournadozer as pusher, averaged 9½ pay yards each . . . load time varied from 35 to 50 seconds

HIGH-SPEED, RUBBER-TIRED EXCAVATING • HAULING • LIFTING EQUIPMENT

logging road and rail spur

Heils' 19 m.p.h. Tournadozer consistently pushes loads 9½ pay yards of alluvial dirt and rooted hardwood into Tournapull level in an average of 45 seconds and a distance of 75 to 100 ft.



...spread time from 10 to 15 seconds. Unit production: approximately 247 pay yards hourly.

369 pay yds. hourly on 2000' cycle

Performance of Tournapulls has been equally good on longer hauls. Over 1000 ft. of rough road, each "C" regularly completes 13 trips per hour. Loads in hard-packed gravel, again obtained with Tournadozer as pusher, also average 9½ pay yards. Cycle time of 4.4 minutes includes ¾ minute to load and 25 to 30 seconds to spread in thin, accurately-controlled layers over 100 to 125-ft. distances. Output on the 2000-ft. cycle: 123 yards per unit per hour.

Get all the facts

See for yourself what modern Tournapulls and Tournadozers can do in all kinds of materials... and weather...over any length haul. Ask your LeTourneau Distributor for a demonstration of the dirtmoving abilities of these machines, or ask him for job-proved facts and figures on work like yours.



Mountainous country requires highway fills up to 60' ... cuts as deep as 30'.



Haul speed of Tournapulls on typical 2000' cycles averages 12 m.p.h.

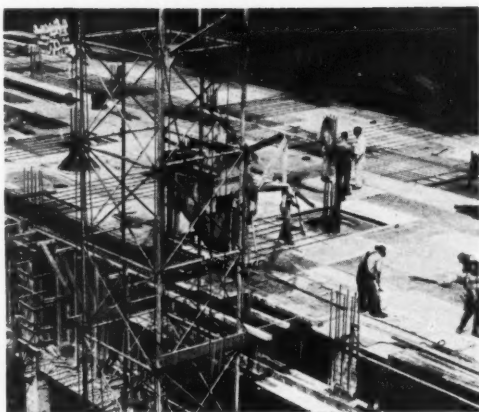
Tournadozer: Tournapull, Carryall—Trademark Reg. U. S. Pat. Off.
Tournapull—Trademark R239

R. G. LeTOURNEAU, INC. PEORIA, ILLINOIS



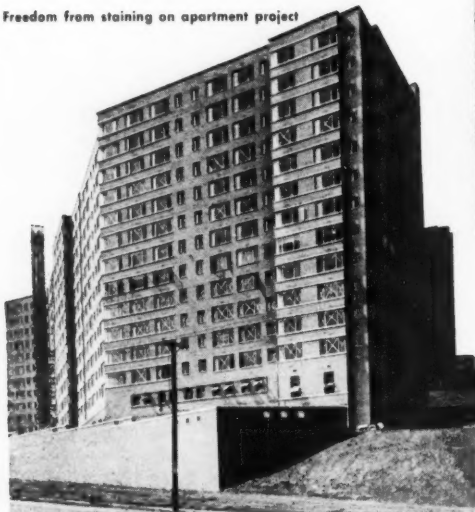


Clean, smooth beams and bridge piers



Smooth concrete industrial building surfaces

Freedom from staining on apartment project



formfilm

Protective Coating for Plywood Forms

All over America contractors report that Formfilm is the answer for the protective coating of plywood forms. Formfilm eliminates all oil staining and sharply reduces rubbing costs.

Advantages of Formfilm

- Increases speed of form handling
- Increases use of forms without recoating
- Increases life of forms—no grain raising
- Eliminates all disadvantages of oil or oil deposits on concrete.
- Cleaner, smoother surfaces at lower cost

A. C. HORN COMPANY, INC.

MANUFACTURERS OF MATERIALS FOR BUILDING MAINTENANCE AND CONSTRUCTION

10TH STREET & 44TH AVENUE, LONG ISLAND CITY 1, N. Y.

LOS ANGELES • SAN FRANCISCO • HOUSTON • CHICAGO • TORONTO

SUBSIDIARY OF SUN CHEMICAL CORPORATION



.....

• GENTLEMEN: CS-51

• Please send complete data on FORMFILM

• NAME _____ TITLE _____

• COMPANY _____

• ADDRESS _____

• CITY _____ STATE _____

A.S.C.E.-A.G.C. Conference

Current problems of the construction industry were reviewed by the Joint Cooperative Committee of the American Society of Civil Engineers and the A.G.C. during the latter's annual board meeting in Chicago.

Engineers and contractors decided that an outline of the numerous difficulties and uncertainties should be assembled for the purpose of placing before the engineers of the nation the industry's current problems.

A.S.C.E. President Gail A. Hathaway, special assistant to the Chief of Army Engineers, was requested to present this summation to the Engineers Joint Council which represents over 150,000 engineers.

Termination clauses were reviewed by the committee, and it advised that all contracts include such provisions.

Engineers' credit for time spent on construction jobs in regard to professional registration was reported to be improving generally.

That salaries for engineers should be increased was unanimously agreed in the form of a resolution. Many engineers, it was disclosed, were joining unions to get higher pay.

The work of the joint committee has been "extremely informative and beneficial to our society," Mr. Hathaway told the A.G.C. Boards.

Producers' Council, A.G.C. Start Work

» THE PRODUCERS' Council and The Associated General Contractors of America held their first Joint Cooperative Committee meeting during which the two groups set up and adopted a working policy and discussed items of mutual interest.

The purpose of the committee is to study and develop programs which will benefit the construction industry generally and submit these programs to their parent bodies for approval.

Recommendations and stated positions of the committee will in no way be binding on either organization.

Subjects of interest on a national or local basis to either side, the construction industry in general, or to the public will be explored.

The committee is composed of six members from each side. Co-chairmen who officiated at the September 25 meeting were W. M. Werner, general contractor from Shreveport, La., for the A.G.C., and David S. Miller, of The Kawneer Co., Niles, Mich.

The Producers' Council is composed of manufacturers of building materials, and has local organizations throughout the country.

Meetings were agreed to be held twice a year. One meeting to be in the fall and the other to be at the time and place of the annual convention of the A.G.C. The next meeting

of the joint committee will therefore be held in February when the contractors meet in Detroit. Other meetings may be called at the option of the chairmen.

At the recent meeting in Washington, for which the American Institute of Architects offered its board room, discussion centered about topics of both immediate and general concern.

William Demarest, A.I.A. secretary for modular coordination, led an informative discussion on the progress of modular design in construction. He stated that general advancement of this cost-saving building method continued, as was originally anticipated, to be rather slow.

However, he informed the group that interest in this mode of design had been stirred in every section of the country and that several buildings had been built and others planned on a modular basis.

Mr. Demarest asked for advice on the best possible way of selling modular design to building superintendents through the medium of a booklet.

Other topics touched upon included the controlled materials plan, probable effects of the long-promised price control order for the construction industry, subcontractor settlements and standard forms for manufacturers' quotations.



Those who attended The Producers' Council-A.G.C. meeting are, left to right around the conference table: Producers' Council President A. Naughton Lane, Monarch Metal Weather Strip Corp., St. Louis; R. P. Dreyer, Gymnasium Seating Council, Chicago; R. J. Smith, P. J. Walker Co. (A.G.C.), Los Angeles; A. S. Brewer, National Fireproofing Corp., Pittsburgh; K. H. Cunningham, American Structural Products Co., Toledo; R. W. Gastmeyer, H. H. Robertson Co., Pittsburgh; C. M. Mortensen, Producers' Council, Washington; David S. Miller, The Kawneer Co., Niles, Mich.; W. M. Werner, The Werner Co., Shreveport, La.; W. A. Snow, A.G.C., Washington; J. R. Sweitzer, J. R. Sweitzer & Son (A.G.C.), St. Paul, Minn.; Alex. Marks, Otis Elevator Co., New York; F. L. Shackelford, Potter & Shackelford Construction Co. (A.G.C.), Greenville, S. C.; F. M. Hauserman, E. F. Hauserman Co., Cleveland; J. A. Volpe, Volpe Construction Co. (A.G.C.), Malden, Mass.; and R. R. Clegg, American Lumber Treating Co., Chicago.

New Techniques Disclosed at Prestressed Concrete Parley

- Tanks, Pavement and Bridges Built by Method in U. S.
- 600 Contractors and Engineers Attend M.I.T. Meet

» SIX HUNDRED engineers and contractors from all parts of the U. S. discussed the latest developments in prestressed concrete recently at Massachusetts Institute of Technology.

In the first U. S. conference on the building technique, the participants saw demonstrations of the comparatively recent innovation used in construction of large storage tanks, bridges, pavements and piles.

Requires Little Steel

Originally developed throughout the European continent, the prestressing method is still widely relied on by the construction industry there. Because the process requires little steel but much labor, it has progressed

where materials are scarce and labor cheap. For that reason, speakers pointed out, it has not been widely adopted by American builders.

Curzon Dobell of Preload Enterprises, Inc., N.Y.C., asserted that, so far, the most successful application of prestressing concrete here has been in the construction of large storage tanks and silos. He claimed experience by his firm showed a 38% saving in concrete and a 78% saving in steel. He foresaw that the process can be applied to prefabrication of tunnel sections.

Other speakers described the art of prestressing concrete girders for bridge construction, an accepted European device, only experimentally

applied in the U. S. In some instances wire strands or cables were threaded through precast beams, tensioned to over 100,000 psi and then anchored mechanically at the beam ends.

R. H. Bryan, consulting engineer of Nashville, Tenn., told the delegates his firm had built a number of county bridges using concrete block girders—separate blocks held together in tension by prestressing methods. He pointed out that while the cost of concrete has risen since 1940 from \$25 to \$52 per cu. yd., the cost of equivalent concrete blocks has gone up only from \$17 to \$18.

Heavier Equipment Needed

On the other hand, J. K. Gannett, director of research, The Austin Co., said that the fabrication of prestressed members on the site of a project necessitated heavier erecting equipment. Also, labor was apt to cost twice as much as for steel frame construction.

The elasticity of prestressed con-



Owen Buckets... EVERY ONE!

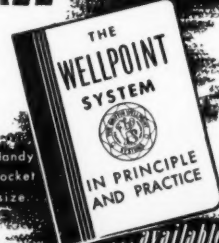
Yes!—whether the scene of construction activity is concerned with EXCAVATING, DREDGING OR REHANDLING, you'll more than likely "spot" one or many Owen Buckets hard at work, coming up with "A Mouthful at Every Bite" and taking "More Bites per Day." Write TODAY for the Catalog.

OWEN CLAM-SHELL BUCKETS
INSURE A BIGGER DAYS WORK

THE OWEN BUCKET CO.
7750 Breakwater Ave., Cleveland, O.
Branches: New York, Philadelphia, Chicago, Berkeley, Cal.

A MOUTHFUL AT EVERY BITE

FREE HANDBOOK



...available to
Contractors, Engineers

Here is the first comprehensive practical handbook on WELLPOINTS! This is the information contractors and engineers have been seeking for years. Not a catalog—not an advertising piece—but a valuable authoritative work written by engineers experienced in dewatering.

WET EXCAVATIONS. Tells you • HOW A WELLPOINT SYSTEM FUNCTIONS • HOW TO PLAN A WELLPOINT LAYOUT • HOW TO INSTALL YOUR WELLPOINT SYSTEM • HOW TO OPERATE IT EFFICIENTLY.

GRIFFIN WELLPOINT CORP.
881 East 141st St. New York 54, N. Y.

Please send me, without obligation, my copy of THE WELLPOINT SYSTEM.

Name.....
Title.....
Firm.....
Address.....

Clip this to your letterhead

crete members was demonstrated with pictures of a long beam bending and recovering under the weight of a small tractor and of a 60-ft. girder deflecting more than 22" under four times its 50,000 lbs. design load. In these and other cases, hairline cracks which appeared under great weight disappeared as the load was removed.

In another field of construction, A. E. Cummings, director of research, Raymond Concrete Pile Co., N.Y.C., and K. P. Billner, president, Vacuum Concrete Corp., Philadelphia, described use of prestressing in concrete piles. Mr. Billner even proposed that the steel could be recovered after the piles were driven.

Concrete Slab Experiments

The advisability of using prestressed highway pavements was covered by L. Coff, N.Y.C. consulting engineer, and B. F. Friberg, vice president, Granco Steel Products Co. Mr. Coff reported that a 3" thick prestressed slab had been laid on a 12" thick lean-concrete base over poor ground in a Chicago warehouse four years ago. To date no cracks have appeared in the slab although it has been subjected to very heavy loading and wear.

The Associated General Contractors of America was one of the six co-sponsors of the conference and sent two members as representatives. They were C. B. Solomon, vice president of George B. H. Macomber Co. and president of A.G.C. of Mass., and H. L. Goodell, chief engineer of the Maxon Construction Co., Dayton, Ohio. Both men presided over sessions.

Silicates Are Fire Resistant

Recent tests by the National Bureau of Standards have proved that concrete with siliceous aggregates has excellent fire resistance, contrary to general belief.

Many building codes, based on faulty tests made 25 to 35 years ago, give preference to concrete with non-siliceous materials, such as limestone, trap rock, slag and cinders, and require for fire protection a greater thickness of concrete containing aggregates such as sandstone, granite, quartzite and chert.

The latter group, however, has proved to be more fire resistant in most cases than typical building codes require of the "preferred" aggregates.

Sand and gravel firms are sending copies of the bureau's report to building code officials.

Contractor Has Radio Scheme

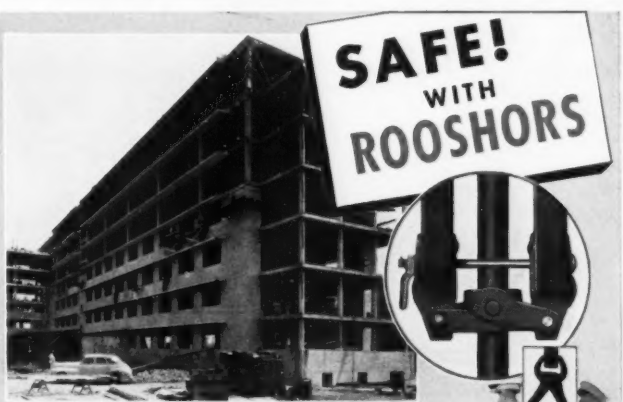
An enterprising contractor has decided to keep in contact with his far-flung crews by two-way radio.

J. P. Hollerich of LaSalle, Ill., has proposed to the city council a plan

to put a radio transmitter atop a water tower and then equip all his trucks, automobiles, tractors and earthmoving machines with radios.

Radio contact with the home office may settle in minutes problems arising on the job.

CAA is testing a new device using radio-active material to measure moisture content and density of soil under airport pavement.



THE GREATER THE LOAD, THE GREATER THE GRIP

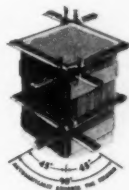
The Rooshor Lock acts like a pair of monster tongs assuring absolute safety. At all times the pressure is three times as great as is necessary to prevent slipping. Rooshors have no loose parts such as pins or wedges to become lost. Rooshors fit every job and are easily handled by one man. They are instantly adjustable within their three ranges of sizes: 8 ft. to 14 ft.; 7 ft. to 13 ft.; and, 5 ft. to 9 ft.—higher stories are shored with the Roos Extension Shore.

Clamp Columns Quicker with Roos Column Clamps

Roos Column Clamps are faster and save contractors money because they cannot be put on wrong (no rights and lefts)—thereby eliminating lost time and motion in fitting and adjusting. They automatically square the column and have no loose parts to come loose causing needless delays.

For Prompt Service—Rooshors and Roos Column Clamps are available for rental from warehouse stocks in principal cities from coast to coast.

Write for Bulletin 251



BAKER-ROOS, INC.

602 WEST McCARTY STREET
INDIANAPOLIS 6, INDIANA

**Wouldn't you
rather sit
in a classroom
like this?**



If you were going to school again, wouldn't you rather spend *your* day and do your work in a classroom filled with fresh air and daylight . . . filled with the feeling of freedom of a wide-open view? A room alive and *alert*.

You can give your *children* that kind of study atmosphere by opening up your classrooms, as so many have done, with economical room-length, ceiling-high window walls of famous Fenestra® Intermediate Steel Windows.

HERE ARE THE EXTRAS YOU GET:

MORE DAYLIGHT—Fenestra Steel Windows offer greater glass areas—more daylight—because their frames are fashioned to be strong and rigid without being bulky!

CONTROLLED FRESH AIR—Smooth-swinging vents protect against drafts . . . permit ventilation even on rainy days.

MORE SEE-THROUGH VISION—Nothing ruins the freedom of the view.

MORE PROTECTION FROM ACCIDENTS—Sill vents keep children from falling out. Windows are washed and screened from the safe *inside* of the room.

Of course slim-lined Fenestra Steel Windows add modern beauty, too . . . inside and out. And remember—you get triple savings. *Low first cost:* volume production. *Low installation cost:* Standardized modular sizes. *Low maintenance cost:* steel lasts!

***Fenestra* WINDOWS • PANELS • DOORS**



FENESTRA HOT-DIP GALVANIZING SLASHES WINDOW MAINTENANCE COSTS

Check on Fenestra Hot-Dip Galvanized Windows. Fenestra Engineers have combined the strength of steel with the super-protection of special galvanizing done in their automatically controlled new galvanizing plant. This combination puts *new* meaning in the term "maintenance-

free". Fenestra Steel Windows are rugged and rigid! And painting is eliminated!

For further information, call the Fenestra Representative (listed under "Fenestra Building Products Company" in your Yellow Phone Book). And send for . . .

Free Authoritative Books

BETTER CLASSROOM DAYLIGHTING—Well-illustrated, simply-written, 16-page guide based on two years of research by well-known Lighting Expert R. L. Biese.

FENESTRA HOT-DIP GALVANIZING—Illustrated booklet showing how Fenestra Hot-Dip Galvanizing makes Fenestra Steel Windows stay new.



engineered to cut the waste out of building

Detroit Steel Products Company
Dept. C-10, 2255 E. Grand Boulevard
Detroit 11, Michigan

Please send me:

- ☐ Better Classroom Daylighting
☐ Fenestra Hot-Dip Galvanizing

Name _____

Address _____

P&H PAYS OFF 3 WAYS

1 Greater Stability

gives you a higher ratio of lifting capacity in relation to gross weight... lets you work faster!

2 More Modern Features

true tractor-type crawlers...
low pressure hydraulic control...
live roller circle...
all-welded construction...

3 Unexcelled Service

Genuine P&H parts stocked by dealers... backed by nation-wide network of warehouses to keep your jobs on the move.



P&H

POWER SHOVELS and CRANES
4418 W. National Ave.
Milwaukee 14, Wis.

HARNISCHFEGER
CORPORATION

SEE YOUR P&H DEALER

Warehouses and Service Stations:

TETERBORO
LOS ANGELES

DALLAS
MILWAUKEE

SEATTLE
JACKSONVILLE

MEMPHIS
SAN FRANCISCO

the **P&H** Line



POWER SHOVELS • CRAWLER AND TRUCK CRANES • OVERHEAD CRANES • HOISTS • ARC WELDERS AND ELECTRODES • SOIL STABILIZERS • DIESEL ENGINES • PRE-FAB HOMES

» INCREASING problems in chapter management resulting from current economic controls were studied in Chicago last month by the Secretaries' and Managers' Council of The Associated General Contractors of America at its meeting held in conjunction with the A.G.C. Midyear Board Meeting.

Topics of particular interest included the controlled materials plan, wage stabilization, chapter administration, labor relations, public relations, price controls, civil defense and the Army Affiliation Program.

A.G.C. President G. W. Maxon told representatives from most of the association's 116 chapters that any and all ideas registered with the national staff in Washington were of great assistance to Managing Director H. E. Foreman and his assistants in their presenting to control agencies the effect of regulations on the construction industry as a whole.

Team Work Stressed

A. S. Horner, A.G.C. vice president, asserted that never before was cooperation between chapter officers, secretaries and members of the national staff so sorely needed.

Need for teamwork was reiterated by Managing Director Foreman, who maintained that the flux of the economy prevented any inflexible planning. The best the association could do, with the help of all the chapters, was to present to the government as complete an account of the evidence as could be compiled, so that in the light of all the available facts, controls agencies could make the best determinations possible, he said.

Chapter Executives' Problems Multiplying

• Increasing Controls Burden Discussed by Council in Chicago

He indicated that though government action was not always considered to be the best under the circumstances, members of the construction industry could not lose sight of the fact that a very serious war was in process, a war which had already taken many American lives.

War means a shortage of goods for normal consumption. Shortages mean controls, he said, and controls mean discrimination in favor of defense and defense supporting projects. The construction industry is caught in the inescapable cross-fire between owners and control agencies, he asserted.

Mr. Foreman congratulated the chapters for their work in establishing military construction units, three of which are now in Korea with the Corps of Engineers.

Labor and wage matters were briefed for the council by J. D. Marshall, assistant managing director, who pointed up the leading problems facing the construction industry today in this particular arena.

Discussion of civil defense revealed that a number of A.G.C. chapters and branches have set up integral parts of local and state civil defense programs, or otherwise are cooperating with agencies in this field.

Liaison Committees

Council Chairman Allan E. Gifford, Boston, Mass., reported substantial benefits were being realized from the work of liaison committees established

by the secretaries and managers to work with the standing committees of the association.

A report of the council's liaison committee with the Accident Prevention Committee by Chairman George M. Schmeltzer, Harrisburg, Pa., stressed the importance of each chapter manager's obtaining accident reports from their members for use in a national compilation. He asserted that the chapter executives were the key men in developing a good national accident prevention program, and outlined the cost advantages to be gained by contractors through safety.

The council's liaison committee with the Public Relations Committee met with the latter group during the Board meeting to discuss ways in which the national staff could assist chapters in developing their own local public relations programs. O. W. Crowley, Des Moines, Iowa, and Charles Newell, Austin, Tex., are co-chairmen of the liaison committee.

Council Chairman Gifford also appointed a liaison committee, headed by C. F. Grisham, New Haven, Conn., to work with the national staff toward establishing a suitable certificate or award in recognition of longevity of service of chapter executives.

Labor Recommendations

The council recommended that the national association, in view of the shortage of labor and the unethical practices which are cropping up throughout the country threatening the labor relations structure of the construction industry, take the following steps:

Encourage general contractors to do all of the basic work on projects including masonry; promote cooperation between general contractors and chapters in regard to stabilization of area wage rates; discourage unethical advertising for scarce mechanics; cooperate with the Construction Industry Stabilization Commission in fixing and enforcing area wage rates; and assist in accelerating and expanding apprentice training programs.

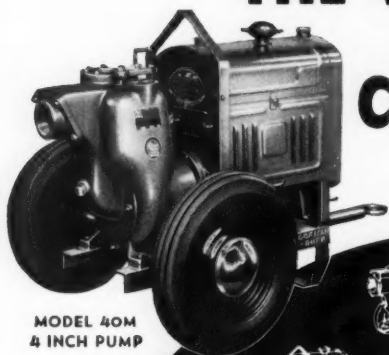
Following the morning session of the council, division meetings were held during the afternoon.

The Building Division, headed by Chairman Robert Patten, Charlotte, N. C., discussed in detail the problem



Secretaries' and Managers' Council Officers: Vice Chairman Robert Patten, Chairman Allan E. Gifford, and Vice Chairman Earle W. Devalon. Missing is Secretary-Treasurer William Bowden, Pittsburgh.

THE WORLD'S MOST COMPLETE LINE !



MODEL 40M
4 INCH PUMP



A complete line of Engine Powered and Electric Motor Driven, Self-Priming and Non Self-Priming Centrifugal Pumps - - -

CONTRACTORS' PUMPS
MINING PUMPS
INDUSTRIAL PUMPS
TRASH-TYPE PUMPS
PETROLEUM PUMPS
IRRIGATION PUMPS

Gorman-Rupp answers your Pumping Problem

Come to us with your pumping problems. We can furnish you with any size of self-priming centrifugal pump ranging in capacity from $\frac{3}{4}$ inch, 1000 GPH to the big 10 inch, pumping 240,000 GPH.

Gorman-Rupp Pumps are **GUARANTEED in plain language** by us and our distributors. They will pump more dirty water, more hours with less gasoline, will prime quicker and at higher suction lifts than any other self-priming pump. Write us about your pumping problems — ask for a copy of our guarantee.

*New Contractors' Pump Bulletin 8-CP-11
furnished on request.*

THE GORMAN-RUPP COMPANY
MANSFIELD, OHIO

CHAPTERS • BRANCHES

of area wage rates, and other labor problems.

The shortage of steel was the principal topic discussed by the Highway and Heavy Division of the council led by Chairman Earle W. Devalon, Denver, Colo. Highway contractors are finding greater difficulty in completing projects because of inadequate material supplies.

A.G.C. Branch and Chapter Meetings

A monthly, cumulative list of annual meetings scheduled by chapters and branches of The Associated General Contractors of America, as reported to THE CONSTRUCTOR:

Oct. 8, 1951. CONNECTICUT STATE CHAPTER. New Haven. Ceriani's Restaurant.

Oct. 14 - 15 - 16, 1951. CAROLINAS BRANCH. Pinehurst, N. C. The Carolina.

Oct. 19, 1951. PENNSYLVANIA BUILDERS CHAPTER. Harrisburg. Penn Harris Hotel.

Nov. 30 - Dec. 1, 1951. NORTHERN CALIFORNIA CHAPTER. San Francisco. Palace Hotel.

Nov. 30 - Dec. 1, 1951. A.G.C. OF NORTH DAKOTA. Grand Forks. Dacotah Hotel.

Dec. 2-3, 1951. MUNICIPAL CONTRACTORS Assoc. Dallas. Adolphus Hotel.

Dec. 4, 1951. COLORADO BUILDING CHAPTER. Denver. Albany Hotel.

Dec. 4, 1951. DALLAS CHAPTER. Dallas. Dallas Athletic Club.

Dec. 6-7-8, 1951. HIGHWAY CONSTRUCTION INDUSTRY OF SOUTH DAKOTA, INC. Sioux Falls. Cataract Hotel.

Dec. 10, 1951. SPOKANE CHAPTER. Spokane. Hotel Spokane.

Dec. 11-12, 1951. MASTER BUILDERS OF IOWA. Des Moines. Hotel Savery.

Dec. 13, 1951. MEMPHIS CHAPTER. Memphis. King Cotton Hotel.

Jan. 8, 1952. MASTER BUILDERS Assoc., Inc. District of Columbia. Mayflower Hotel.

Jan. 8, 1952. PHILADELPHIA CHAPTER. Philadelphia. Barclay Hotel.

Jan. 8-9, 1952. PIPE LINE CONTRACTORS' Assoc. Houston. Shamrock Hotel.

Jan. 8-9-10, 1952. A.G.C. OF IOWA. Des Moines. Hotel Savery.

Jan. 10-11, 1952. KANSAS CONTRACTORS Assoc. Kansas City. President Hotel.

CHAPTERS • BRANCHES

Jan. 10-11-12, 1952. A.G.C. of MINNESOTA. St. Paul. St. Paul Hotel.
 Jan. 11-12, 1952. MONTANA CONTRACTORS' ASSOC., INC. Missoula. Florence Hotel.
 Jan. 11-12, 1952. MONTANA BUILDING CHAPTER. Missoula. Florence Hotel.
 Jan. 13-14, 1952. NEBRASKA BUILDING CHAPTER. Lincoln. Hotel Cornhusker.
 Jan. 18, 1952. MILWAUKEE CHAPTER. Milwaukee. Schroeder Hotel.
 Jan. 22-23, 1952. A.G.C. of MISSOURI. St. Louis. Staller Hotel.
 Jan. 25-26, 1952. COLORADO CONSTRUCTORS ASSOC., INC. Denver. Shirley-Savoy Hotel.
 Feb. 1, 1952. CONSTRUCTORS ASSOC. OF WESTERN PENNA. Pittsburgh. Hotel William Penn.
 Mar. 12, 1952. HOUSTON CHAPTER. Houston. Ben Milam Hotel.

Tentative Dates

Nov. 1951. MASTER BUILDERS ASSOC. OF ALLEGHENY COUNTY. Pittsburgh. (Not selected.)
 Jan. 7, 1952. ASSOC. OF OKLAHOMA GENERAL CONTRACTORS. Oklahoma City. Huckins Hotel.
 Jan. 8, 1952. INDIANA GENERAL CONTRACTORS' ASSOC. Indianapolis. (Not selected.)
 Jan. 10, 1952. BALTIMORE BUILDERS CHAPTER. Baltimore. Park Plaza Hotel.
 Jan. 25, 1952. SOUTHERN CALIFORNIA CHAPTER. Los Angeles. Biltmore Hotel.
 Feb. 1952. CLEVELAND CHAPTER. Cleveland. (Not selected.)
 June 17, 1952. TEXAS HIGHWAY BRANCH. Austin. Austin Hotel.

Obituary

Charles S. Henning, 63, Henning-Payne Construction Co., Abilene, Texas, died at his home August 26, thus ending a long and distinguished career in the construction industry.

Mr. Henning, 1929 president of the Texas Highway Branch, entered the highway contracting field in 1925 and was active in the association from that date on, serving for many years on the board of directors.

In 1941 he was made an honorary life member of the branch, and in 1951 this same honor was bestowed upon him by the American Society of Civil Engineers.

Stay "Out of the Hole" on Tunneling Jobs

Many contractors have found that Armco Liner Plates help assure adequate profits on tunneling jobs.

The reason is that Armco Liner Plates have a high strength-to-weight ratio that makes them easy to handle and install. One man can carry, hold and bolt a section into place using only a structural wrench. Less bulk also means less excavation. And of course, with tunneling there is no dirt to be stored and later used to fill open trenches.

Bad weather is seldom a hindrance when you tunnel. Work moves steadily and can be completed on schedule.

Use Armco Liner Plates with confidence under busy streets, highways and railroads or wherever else you need the protection and economy of a steel liner. Write us for complete information. Armco Drainage & Metal Products, Inc., 4551 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation.

ARMCO LINER PLATES



More Scrap Means MORE Steel — Turn YOURS in Today!



LOAD, HAUL and UNLOAD MORE Heavy Equipment IN LESS TIME



...with the "Sensational"
ROGERS TYPE "TPG" Power Lift

**DETACHABLE
GOOSENECK**

● Versatile performance features plus well known Rogers quality construction embodied in work tested design, puts the Type "TPG" Power Lift Detachable Gooseneck Trailer in a class by itself for an "all purpose" single unit.

If you contemplate the purchase of a new trailer, by all means investigate this increasingly popular model. Write for literature today.

THE ROGERS *Power Lift* DETACHABLE GOOSENECK CAN BE OBTAINED ON ANY STANDARD ROGERS DROP DECK TRAILER

EXPERIENCE
builds 'em

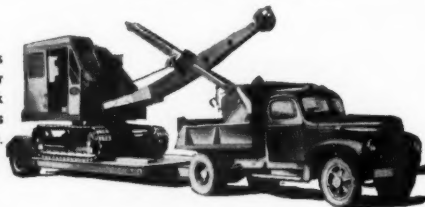
PERFORMANCE
sells 'em

ROGERS BROS. CORP.
ALBION, PENNA.

223 ORCHARD STREET

Export Office: 50 Church St., N. Y. 7, N. Y.
Cable Address: "Broscites"

Also of timely interest is this ROGERS Tag-A-Long trailer which makes a dump truck serve as a tractor and effects sizable savings for contractors.



DECK LEVEL
ONLY 16" FROM
GROUND

5 EXCLUSIVE ADVANTAGES

1. Carries heavier loads on larger tires.
2. Detaches quickly for fast, easy front loading.
3. Stoops to clear low overhead obstructions.
4. Raises its deck to clear high banked crossings.
5. Is detached, loaded and reattached in 5 minutes.

CHAPTERS • BRANCHES

Texas Ex-Presidents Honored

The 300 members and guests at the annual party of the Texas Highway Branch, A.G.C., comprised the largest crowd ever to attend the event.

The dinner-dance honoring Highway Commission district engineers and department heads and members of the press, paid special tribute to the 11 living past presidents of the branch for their "unstinting service to the construction industry," eight of whom were on hand to receive commemorative plaques from E. H. Thornton of the Highway Commission.

An accident prevention contest plaque was presented to W. M. Ness who represented the Spencer Construction Company, Carrollton, Texas, 1937 winner of the Zachry Trophy in the national A.G.C. accident prevention contest.

The eight past presidents who were present were: Charles S. Henning, Tyree L. Bell, H. B. Zachry, Colonel Dwight Horton, W. W. Braden, Dean Word, M. B. Killian, and F. W. Heldenfels, Jr. R. J. Potts, Herman Brown and J. R. Hill were unable to attend.

New Hampshire Progress

At the conclusion of its second year of existence The Associated General Contractors of New Hampshire issued an enviable progress report.

During the year ending in August 1951 the association grew from 24 to 57 active and associate members. Its charter as a member group of the A.G.C. was approved in September 1949.

Among its accomplishments the chapter since August 1950 has been active in wage negotiations for members who operate under agreements with organized labor, and has established itself as the representative of contractors in all labor matters.

In public relations, all awarding agencies in the state have been contacted to acquaint them with the A.G.C. For the first time an active part was taken on state legislation. A plan room has been established.

This spring the first meeting was held of a joint committee of architects and general contractors. Resolutions have been formulated for adoption and to become part of the standard bidding procedures in the state.

65

the WARCO motor grader has positive hydraulic controls...cab-controlled



blade positions...rugged
long-life construction.

- Included in the base price are features usually billed as "extras" by other makes.
- For a unique combination of practical work-producing features, you pay the market's best price. Your WARCO dealer can prove this...ask him!

WARCO 4D-100 Motor Grader
Heavy Duty 100 H.P.
WARCO 4D-76 Motor Grader
General Duty 76 H.P.

WARCO
MOTOR GRADERS

W. A. RIDDELL CORP.
BUCYRUS, OHIO

• builders of WARCO Motor Graders — HERCULES Road Rollers

ASK TO SEE WARCO COLOR SLIDES

An informative series of color slides showing WARCO design... construction... operation... now at your WARCO dealer's. Ask for a showing soon!



CHAPTERS • BRANCHES

For the first time in New Hampshire, bricklayer apprentices received classroom instruction in addition to job training in a program started in Manchester to be expanded throughout the state.

The state was the fifth to include a termination clause in its specifications, and the chapter has been successful in correcting undesirable specifications and unsuitable practices on public and private work.

From material received from the national association, the chapter has kept its members, and other groups, informed on federal regulations. It has cooperated with state agencies on civil defense.

President of the chapter is Robert Foster, of Foster & Bamford, Inc., Concord. President last year was Parker Rice, of Manchester Sand, Gravel and Cement Co., and the first president was Vincent R. Swanburg, of Swanburg Construction Corp., Manchester. Rowland Oakes is executive secretary.

So. Cal. Increases Staff



J. E. Hergert (left) and George Cox

Two additions to the executive staff of the Southern California Chapter, A.G.C., to help meet service demands of its large membership were announced last month by Chapter Manager W. D. Shaw.

J. E. Hergert, formerly manager of the Montana Contractors' Association, A.G.C., was named field representative, with one of his principal assignments the maintenance of contact with public officials and awarding agencies in the territory.

Also added to the staff was George Cox, who will head the legal department to interpret governmental regulations for the members.

» EFFORTS to gain wider participation among A.G.C. members in the association's annual accident prevention survey, designed to help members through the comparison of individual programs and results, continue and are expanding, according to H. B. Alexander, Harrisburg, Pa., chairman of the Accident Prevention Committee.

In his report to the Governing and Advisory Boards, Mr. Alexander stressed the new emphasis which is being put on accident prevention.

This new emphasis accents the progressive, educational values of the program rather than its competitive, contest aspects. Awards will be given annually as in the past, he said, based on comparative standings of "cooperators" whose records for the year are given a key number. Each participant is informed of his key number, but only winners of the various classifications are identified with their records.

Danger that outside forces will impose accident regulations on the construction industry is one of the most

Cooperation in Safety Program Urged

• Committee Cites Advantages of Accident Prevention

important reasons for full cooperation by every member of the A.G.C. and all chapter officers, he warned.

"It is the purpose of this program to promote the safety of workmen to prevent injury to themselves and suffering to their families. Also, such a program would greatly strengthen our position for solid resistance against proposed outside controls, either by legislation or otherwise."

The A.G.C. has closely cooperated with other groups, reported Mr. Alexander. A large number of A.G.C. representatives are active in the National Safety Council and committees of the President's Conference on Industrial Safety, and have participated in state and local safety programs.


These efforts are aimed at reducing the contractor's costs as well as strengthening the industry's position to combat legislation and other means

of creating more regulations affecting construction.

Mr. Alexander stated the time taken to fill out forms required for the annual program was worth the effort. He pointed out that in some cases, an improved accident record has saved as much as \$7 for every \$100 of payroll.

Interest in accident prevention on a chapter basis has been stimulated through the newly-created Secretaries' and Managers' Liaison Committee, but much work in this field must be done. To date, there are many chapters which have no members participating in the accident prevention program.


The Association of Casualty Insurers-A.G.C. Joint Cooperative Committee and the American Standards Association are other important bodies through which the association is striving to improve safety in the construction industry.



how
white
is
white?

“...his milk-white
steed was whiter than
a sheeted ghost”
—Anon

Use Trinity White—the whitest white cement. Trinity White is a true portland cement. It meets all Federal and ASTM specifications. Sell Trinity White for architectural concrete units, terrazzo, stucco, paint, ornamental work, tilesetting, etc. When ordering ask for it by its full name *Trinity White*—it's widely advertised to your trade. Trinity Division, General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.



Trinity

White

PORTLAND CEMENT

Severity Rate Increases, Frequency Drops

• National Safety Council's 1950 Report Shows Fall in Rank

» THE NATIONAL Safety Council's annual survey of accident rates in 40 major industries shows that the frequency of accidents in the construction industry during 1950 declined 1% while the same rate de-

clined 8% for all industries together. The severity rate for construction rose 27% reversing the downward trend which had continued for the three previous years. The severity rate for all industries, however, de-

clined 8% for a total improvement. The construction industry slipped in rank during 1950. Its frequency rate of 19.34 moved it from 34th to 36th in that category, and its severity rate of 2.72 moved the industry's rank from 33rd to 37th.

Improved Since 1939

Since the base period, 1935-39, the construction industry has made substantial improvements in both severity and frequency rates which have fallen 17% and 15% respectively. But these improvements do not compare too favorably with the 39% decrease in severity and 29% decrease in frequency for all industries for the same period.

Though permanent disabilities in the industry were not quite as serious as in 1949, permanent partial injuries and fatalities increased by one-third.

The major contribution to the decrease in the frequency of accidents was the reduction of temporary total disabilities. However, the seriousness of this type of injury was substantially greater than in 1949.

Concrete Bridges, Dams Safest

Concrete bridges, dams and related projects proved to be the safest. There were no accidents reported by this industry group. Tunnel and subway projects rated highest for both severity and frequency of accidents with structural and ornamental metal work running second.

Indirect Cost of Accidents

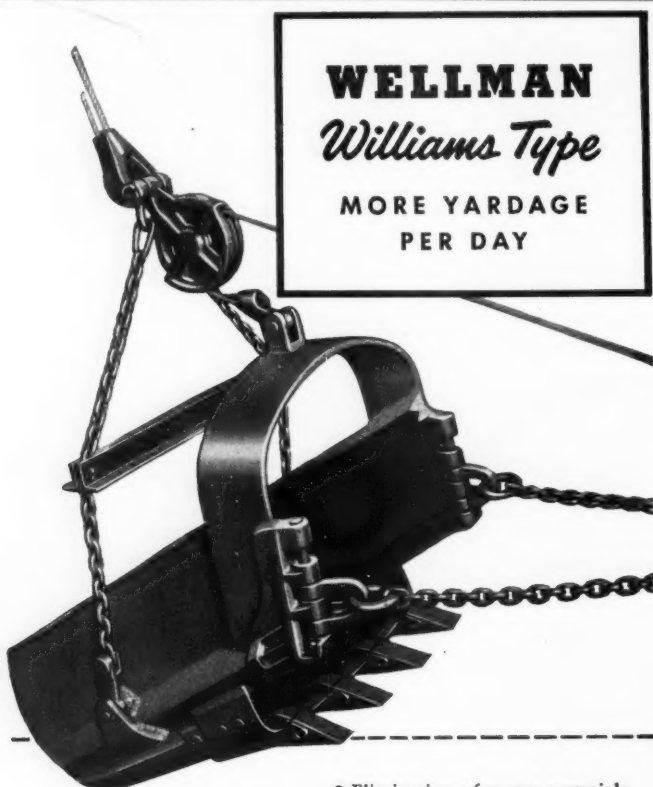
The accident: A workman, while placing a ladder in a trench, punctured his ungloved hand on a splintered rung.

Direct cost: \$5 for first aid and a visit to the doctor.

Proximate results: Pain from the injury caused the workman to drop the heavy ladder which fell and knocked out key members of the trench brace. When a 35-ft. section of the trench collapsed, a mobile crane was undermined and fell into the trench, and a brick sewer was damaged. A crew of 15 men was required to reorganize the job.

Indirect cost: \$1,700 was paid out of the contractor's pocket.

Prevention: Thorough inspection of equipment; gloves for the workman.



WELLMAN
Williams Type
**MORE YARDAGE
PER DAY**

• Elimination of excess materials and careful weight distribution permit rapid, rhythmic operation of Wellman Dragline Buckets. Operators can cover a wider digging radius with this streamlined bucket.

Built of special alloy steel, using strong welded design, Wellman buckets provide strength and stamina for long-term economy. Perforated designs also available. You'll do better with Wellman.

Want Facts?

Write for free
descriptive bulletins.

THE WELLMAN ENGINEERING COMPANY
7000 Central Avenue • Cleveland 4, Ohio

DRAGLINE, CLAMSHELL, CUSTOM-BUILT BUCKETS • STONE AND WOOD GRABS



Permanent Plaques Presented Safety Winners

For its outstanding safety record, the Burrell Construction & Supply Co., New Kensington, Pa., was awarded the Swenson Trophy in 1942.

This award, presented annually by The Associated General Contractors of America to a heavy contractor member, was retained for one year only. To provide a permanent award similar to those now given, the A.G.C. is distributing plaques to winners over the period from 1931 to 1946.

Above, Thurman C. Tejan, executive secretary, Constructors Association of Western Pennsylvania, presents the plaque to Charles H. Booth, Jr., vice president of the Burrell Co., right.

Below, E. J. Harrison, left, chairman of the board, and M. C. Harrison, center, president of the Harrison Construction Co., Pittsburgh, Pa., receive from Mr. Tejan a plaque representing the Zachry Trophy, which the firm won in 1940 for its safety record among A.G.C. highway contractors.



THE CONSTRUCTOR, OCTOBER 1951

FROST-PROTECTION

EFFECTIVE and ECONOMICAL

with SISALKRAFT CURING BLANKETS



Temperatures recorded automatically under actual field conditions prove Sisalkraft provides amazing protection against frost.

- ✓ 17-degree margin of safety in sub-freezing temperature.
- ✓ Effective as a 12-inch layer of straw . . . and easier to apply and remove.
- ✓ Assures more uniformly dependable protection and curing.
- ✓ Truly economical because it can be RE-USED 15 times or more.
- ✓ Saves time, labor and materials.
- ✓ Helps you complete your late paving schedules despite cold weather.
- ✓ Takes guesswork out of frost-protection.



SISALKRAFT Curing Blankets cure America's most famous roads.

WRITE TODAY to DEPARTMENT TC10
for this valuable
26-page book
... no charge



Member of
American Roadbuilders'
Association



THE SISALKRAFT CO.

305 West Walker Drive, Chicago 6, Illinois
New York 17, N. Y. • San Francisco 3, Calif.

Tractors—Caterpillar Tractor Co., Peoria 8, Ill. Heavy-duty fenders are now standard equipment for D8 track-type tractors. They are manufactured from $\frac{1}{2}$ " steel plate and are designed to provide more rigid platform for mounting equipment and to withstand greater abuse and rough treatment.

Track Rollers—Craig Carroll Co., 1704 S.E. 22d Ave., Portland 15, Oreg. "DE" series interchangeable

track rollers feature "dirt-exclusion" sealing principle and one-piece manganese alloy steel shell. Operation of "dirt-exclusion" feature depends on "Flow-Away" sealing pioneered by Carroll. It permits small amount of grease to pass outward through seals, at same time excluding all dirt, grit or abrasive matter from roller. Use of mounting blocks instead of end collars provides sufficient clearance space between blocks and seal housing to allow grease to flow outward. One-

piece roller shell is made in uniform-section manganese alloy steel casting, heat-treated. Extra grease capacity is built into shell. Shaft is center thrust type with ground surfaces, ground and heat-treated full length of shaft. Roller shell, shaft and bearings are same dimensions as Caterpillar rollers and shaft and seals are interchangeable for use in Caterpillar rollers.

Clean up your shop and your job...

put unused scrap
to work for AMERICA!



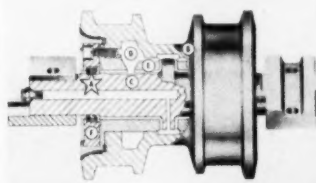
Don't let metal scrap lie idle. It's vital to keep America's production at peak level. Steel producers need 37,000,000 tons of scrap a year to serve you and America. Remember: today's scrap is tomorrow's production of steel for the American Way. It can also make the tanks, guns, and shells to protect our future security. In the shop... or out in the field... clean up after every job—and "Get in the Scrap!"



LACLEDE STEEL COMPANY

Producers of Steel
for Industry and Construction

St. Louis, Mo.



Features of Carroll "DE" track roller. A—"dirt-exclusion" seal. B—one-piece shell. C—center thrust type shaft. D—grease reservoirs. E—bronze bushing. F—seal housing.

Compactor—Jackson Vibrators, Inc., Ludington, Mich. Vibratory compactor is designed for compaction of asphalt, granular soils and water-bound macadam bases. It propels itself at approximately 25' per minute, delivers up to 4,500 $1\frac{3}{4}$ -ton blows per minute and will compact 900 to 1,200 sq. ft. per hour. Machine has one moving part—shaft of heavy-duty vibratory motor. Power plant, mounted on auto trailer unit, generates both single-phase and 3-phase 110-volt, 60-cycle AC and is equipped with permanent-magnet generator.



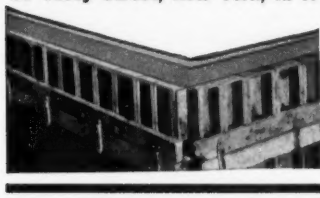
Jackson vibratory compactor

Atlas

STEEL SYSTEM of Concrete Form Speed Construction

SAVINGS of $\frac{1}{3}$ to $\frac{1}{2}$ and over 500 uses are reported by contractors everywhere. All steel SPEED forms can be set up, stripped, cleaned, moved and reused in far less time than wood. Interchangeable on job after job, year after year—Walls, slabs, circular tanks, manholes, tunnels, etc. For complete facts write Dept. CR.

IRVINGTON FORM AND TANK CORP. 20 Vesey Street, New York, N. Y.



Excavator—Koehring Co., 3026 W. Concordia Ave., Milwaukee 10. Newly designed hoe attachment for 304 excavator increases machine's digging depth up to 19'9". Other improvements to 304 provide extra resistance to side sway and extra strength. Excavator's dipper arm is pivoted at end of boom and jackknives to dig vertical backwall. Position of countershaft in line with boom foot mounting elimi-

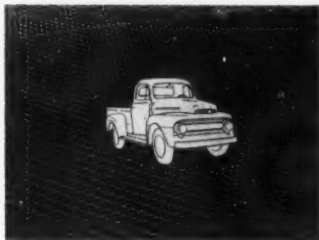


Hoe attachment for Koehring 304 excavator

NEW EQUIPMENT • MATERIALS

nates dipper drift when boom is raised. Use of double digging lines to dipper eliminates reverse cable bends. Adjusting links on dipper arm allow 3 variable settings.

Steel Flooring—Kerlow Steel Flooring Co., 25 Mallory Ave., Jersey City 5, N.J. IQ-35 rectangular steel bridge flooring, laid longitudinally or transversely on bridge, will carry H20 loading on 15" circle up to span of 48" and weighs approximately 19 lbs., manufacturer states. Flooring is made with grating parallel with traffic and transverse to traffic. In latter type, transverse bars that tires ride on are placed higher than longitudinal bars and transverse bars are serrated to enable tires to maintain traction. Grating is finished with red lead paint. ¶ Related open steel flooring for industrial and chemical plants is Series CB standard rectangular pattern. It is forged under 500 tons hydraulic pressure with positive dovetail lock construction. It is swaged cold to prevent internal strains which might cause warping. Slotting terminates above neutral axis of bearing bars. Cross bars extend below bottom of slots to eliminate lateral deflection.



Kerlow IQ-35 rectangular steel bridge flooring

Crushing and Screening Plant—Union Boiler & Manufacturing Co., Lebanon, Pa. Portable crushing and screening plant is built around "Dodd" triple jaw crusher with jaw opening of 11"x24". Material is fed from scoop which can be loaded at ground height. Sand and fine stones which pass through grizzly by-pass

PRESTRESSED CONCRETE

A rational method of construction for elevated express highways, heavy underpasses, underground garages, containers and ducts carrying liquids.

L. COFF, Consulting Engineer, 198 Broadway, New York 7, N. Y., Cortland 7-2753

Reflecting True Quality



*"BOSS" Self-Floning Air Valve

As superior in strength and efficiency as in appearance. Quick-acting, self-adjusting, requires no packing. Handle anchored to plug inside the valve body. Maximum flow in open position through streamlined orifice. Sizes: $\frac{1}{4}$ to 2".

Stocked by Manufacturers and Jobbers of Mechanical Rubber Goods.

Reg. U. S. Pat. Off.

DIXON VALVE & COUPLING CO.

Main Office and Factory, PHILADELPHIA 22, PA.
BRANCHES: CHICAGO, BIRMINGHAM, LOS ANGELES, HOUSTON

crusher and are delivered directly to sizing screen which is suspended under crusher. Stone passing through crusher is also discharged onto sizing screen which is double deck unit receiving its movement from crusher. Screen can be set to remove both fines and oversize or can be adjusted so that all material is delivered to leading conveyor. Plant is 25' long, 92" high, 8' wide and weighs 16,000 lbs. It has rated capacity of 30 tons per hour of minus 1½" stone.

Flooring—Flash-Stone, Inc., 46 E. Rittenhouse St., Philadelphia 44. "Immediate-Set," industrial floor material of asphalt-rock limestone and cold asphalt emulsion, has pulverized natural rubber added to reduce brittleness, provide greater traction and lessen tendency to rut or wave under heavy point loads. It can be used for large area floor resurfacing with ½" layer and can be used immediately after rolling or tamping to floor levels. It is factory-mixed and requires no ad-

ditives or processing before use. It is shipped in 100-lb. lined fabric bags. Complete aggregate may also be obtained in multi-walled bags with supplementary pail of asphalt emulsion for on-location mixing.

Elevating Tower—American Tubular Elevator Co., 800 North St., Zelenople, Pa. Light-weight material-handling elevating tower, Model III Type PT, has 3,000 lbs. capacity, is panel-type, made of light-weight tubular steel. It assembles completely with 11 simplified component parts. Prefabricated panels have integral notch-locking mechanism, requiring no bolts or nuts for braces and girts. Described in Bulletin 374, available from manufacturer.

Trailer—Easton Car & Construction Co., Easton, Pa. TL-1015 goose-neck trailer is lift-door, side-dump of 15 tons capacity designed for service with Caterpillar DW10 diesel tractor. Lift-door body is designed for fixed point dumping, using Easton electric overhead dumping system. Push-button controlled overhead hoist operates dual hook which engages 2 dumping bars on lift door. Door is raised clear of load, then serves as bail to raise body to complete discharge angle. Stabilizer feet, incorporated with body hinges at each end, rest on hopper wall to stabilize trailer frame as unit is dumped. Maximum dumping angle is 70°. Body and trailer frame are of all-welded steel construction with heavy box-section reinforcements throughout. Body floor is reinforced by oak floor cushion and replaceable steel liner plate. Trailer is equipped with Bendix-Westinghouse air brakes, and 21.00-25, 20-ply rating tires.

Construction with Permalite lightweight aggregates requires less steel ...

saves time and manpower

● Much of the saving in light-weight building design can be in structural steel. How? By using Permalite aggregates in floors, walls and roof.

Furthermore, concrete and plaster made with Permalite instead of sand are easy to handle—quick to apply. Rigid completion dates can be set and met!

Permalite aggregate in concrete provides an efficient insulating floor and roof fill

material. In plaster it permits fireproofing structural steel without costly imbedding in heavy concrete. On walls and ceilings it assures lighter, more resilient base coats.

Get the full story on why construction men are using Permalite for all types of construction—industrial buildings, schools, hospitals, defense housing and military buildings.

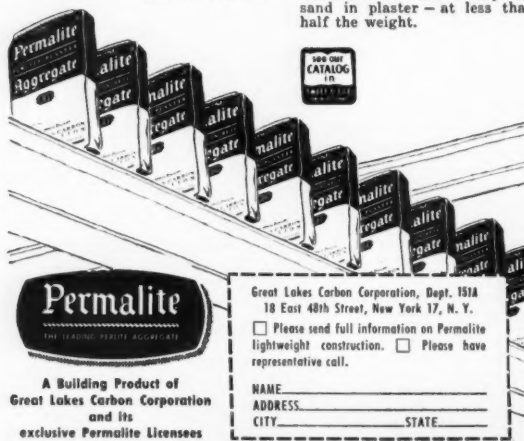
TYPICAL USES:

Concrete Aggregate: Roofs and Floors—over lightweight decking. Exterior Walls—thin, light; easily formed and erected.

Can be monolithically poured

or precast into blocks, slabs and panels—can be sawed or nailed!

Plaster Aggregate: Fireproofing—speedily applied over structural steel. Interior Walls—replaces sand in plaster—at less than half the weight.



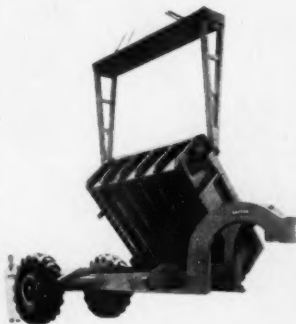
Permalite
THE LEADING PERITE AGGREGATE

A Building Product of
Great Lakes Carbon Corporation
and its
exclusive Permalite Licensees

Great Lakes Carbon Corporation, Dept. 151A
18 East 48th Street, New York 17, N. Y.

☐ Please send full information on Permalite lightweight construction. ☐ Please have representative call.

NAME _____
ADDRESS _____
CITY _____ STATE _____



Easton TL-1015 gooseneck trailer

NEW LITERATURE

Piling—*L. B. Foster Co., Pittsburgh 30, Pa.* Bulletin F-160 lists advantages of renting steel sheet piling and gives engineering details of interlocking sections. Specifications are given for piling sections, as well as corners and connections, of Bethlehem, Inland and Carnegie-Illinois steel sheet piling. Data are also given on pile hammers and extractors available through Foster.

Excavators—*Marion Power Shovel Co., Marion, Ohio.* Bulletin 403 shows working views of entire line of Marion excavators. Condensed specifications are given and types of service to which machines can be converted are listed. Crane lifting capacities are given.

Hammer Bit—*New England Carbide Tool Co., 60 Brookline St., Cambridge 39, Mass.* Folder presents "Thunderbolt" carbide-tipped hammer bit and shows it drilling holes under variety of conditions in hard concrete or granite. Features of bit are pictured and described, and specifications and prices are given.

Conveyors—*Lake Shore Engineering Co., Iron Mountain, Mich.* Complete line of flight and belt-type portable conveyors and under-car unloaders for handling sand, gravel and other bulk materials are presented in Catalog 512. Brief specification data are given on electric- and gasoline-powered models and on hand-move and self-propelled conveyors.

Dredges—*Ellicott Machine Corp., 1611 Bush St., Baltimore 30.* Bulletin 825 presents line of hydraulic dredges. Operating advantages of different types are presented and illustrated section shows dredges working in harbors, canals, rivers, reservoirs, dams, beaches and real estate developments. Basic information on selection of dredges is included.

Dipper Buckets—*Electric Steel Foundry, 2141 N. W. 25th Ave., Portland 10, Oreg.* Catalog 189 describes and illustrates all types of "Esco" dippers, including general-purpose cast-welded dipper, all-cast manganese steel dipper, coal-loading dipper and "Fastback" hoe dipper. Models are illustrated and specifications are given. Job recommendations are included.

The Name **HOPE'S** Guarantees **Lok'd Bar** FACTORY SASH

The strongest factory sash you can buy. "Lok'd Bar" design gives greater strength for its weight of metal. Strouter construction increases resistance to wear, tear and corrosion. Saving in upkeep cost, trouble-free operation and saving in heat losses more than return its small added cost to the owner.

Broad, double contacts on accurate surfaces abolish drafts, save heat. Weathering flanges have no tacked-on strips to corrode and break loose.

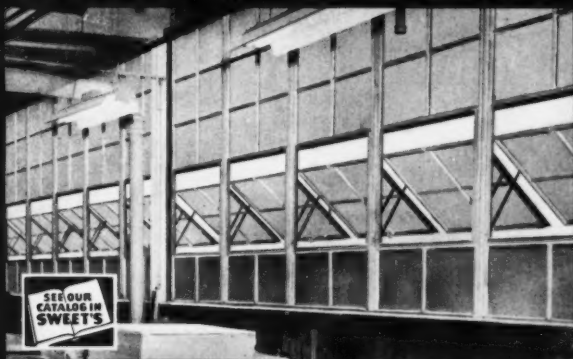
The bulb tee makes the strongest vertical sash bar.

The flat tee muntin totally replaces the steel pierced from the upright — making "Lok'd Bar" the strongest sash joint.

Corners solid-welded, each ventilator frame and casement reinforces the sash, withstands wind and shock for the life of the building.

Engineers like "Lok'd Bar's" extra safety in window walls. Builders find labor savings in installation. Look into Hope's "Lok'd Bar" sash for every good industrial building. Hope's Engineering Department will assist you with detail of window design and installation. Ask for this help!

Projected ventilator, balanced on strong steel arms with brass guides held in true position. (Pivoted ventilators are balanced on solid bronze cup pivots.)



"Lok'd Bar" means the world's finest factory sash. Ask for Catalog 103L

HOPE'S WINDOWS, INC., Jamestown, N. Y.

The Finest Buildings throughout the World are Fitted with Hope's Windows

L. W. Hanson has been appointed vice president of ARMCO DRAINAGE AND METAL PRODUCTS, INC. and manager of the Calco division of the company in Berkeley, Calif.

Roy E. McCluskey, vice president and general sales manager of R. G. LETOURNEAU, INC., has been elected to the Board of Directors of the In-

ternational Road Federation. Mr. McCluskey is also secretary-treasurer of the Board of Directors of the Construction Industry Manufacturers Association.

G. J. Morgan has been appointed general merchandise manager of UNITED STATES GYPSUM Co. H. C. Bear is new assistant general mer-

chandise manager and J. G. Stemples is new merchandise manager of plastering materials.

THE GALION IRON WORKS & MFG. Co. has purchased a large factory in Bucyrus, Ohio. The Galion, Ohio, plant and the new factory together will have floor space of 325,000 ft.

BARNES MANUFACTURING Co. has purchased all the assets of the Shasta Pump Co. in Oakland, Calif., and will operate it as a wholly owned subsidiary manufacturing Barnes pumps for West Coast distribution.

GREAT LAKES CARBON CORP. has produced its 2 millionth 4-cu. ft. bag of "Permalite" brand perlite at its Linden, N. J., plant. The company claims this is an industry record for any one manufacturer.

A. H. Borchardt has been elected vice president in charge of centrifugal, reciprocating and vertical turbine pump sales of WORTHINGTON PUMP AND MACHINERY CORP. V. de P. Gerbereux succeeds him as manager of the centrifugal pump sales division.

Kenneth T. Rudd has been elected treasurer of LINK-BELT SPEEDER CORP.

A. J. Belanger has been appointed assistant sales manager of PIONEER ENGINEERING WORKS.

F. A. Hopp, formerly associated with the Delta Power Division, Rockwell Manufacturing Co., has been appointed advertising manager of the CLEAVER-BROOKS Co.

W. G. Scholl, general sales manager of the tractor division of ALLIS-CHALMERS MANUFACTURING Co., has been named vice president in charge of sales for the division.

All 8 divisions of THE R. C. MAHON Co. are now located in the company's new plant in Detroit. When completed the new plant will cover some 57 acres.

Obituary

John P. Roberts, 43, assistant general manager of The Timken Roller Bearing Co., service sales division, was killed in an automobile accident near Spruce Pine, N. C., September 19. Mr. Roberts had been with Timken since September 1935, and had been assistant general manager of the service sales division since 1945.



Central Surety's home office in Kansas City is conveniently located to give complete service instantly to its agents, from border to border and from coast to coast.



CENTRAL SURETY AND INSURANCE CORPORATION

R. E. MCGINNIS, President

A Multiple Line Company • It's Wise to Centralize

ADVERTISERS' PRODUCTS

Manufacturers' addresses are listed on page 79

Aggregate (Light-weight)

Great Lakes Carbon Corp.,
Building Products Division

Air-Entraining Agents

A. C. Horn Co.

Asphalt Plants (Portable)

Barber-Greene Co.

Iowa Mfg. Co.

White Mfg. Co.

Asphalt Tile

Coleman Floor Co.

Axles (Truck)

Eaton Mfg. Co., Axle Division

Backfillers

Bucyrus-Erie Co.

Cleveland Trencher Co.

Harnischfeger Corp.

Parsons Co.

Batchers

Blaw-Knox Division

Construction Machinery Co.

Heltzel Steel Form & Iron Co.

C. S. Johnson Co.

Bearings (Anti-Friction, Tapered Roller)

Timken Roller Bearing Co.

Bins

Blaw-Knox Division

Heltzel Steel Form & Iron Co.

Iowa Mfg. Co.

Irvington Form & Tank Corp.

C. S. Johnson Co.

Bits (Detachable Drill)

Ingersoll-Rand Co.

New England Carbide Tool Co.

Timken Roller Bearing Co.

Bridges

American Bridge Co.

Armco Drainage & Metal Products

Buckets (Clamshell & Dragline)

Blaw-Knox Division

Bucyrus-Erie Co.

Harnischfeger Corp.

C. S. Johnson Co.

Owen Bucket Co.

Wellman Engineering Co.

Buckets (Concrete)

Blaw-Knox Division

Construction Machinery Co.

Heltzel Steel Form & Iron Co.

Jaeger Machine Co.

Owen Bucket Co.

Building Papers

Sisalkraft Co.

Buildings (Steel)

Allied Structural Steel Cos.

American Bridge Co.

Armco Drainage & Metal Products

International Steel Co.

Macomber, Inc.

Smooth Ceilings System

Truscon Steel Co.

Bulldozers

Bucyrus-Erie Co.

R. G. LeTourneau, Inc.

Car Pullers

Clyde Iron Works

Carpet

Coleman Floor Co.

Ceilings

Fenestra Building Products

Smooth Ceilings System

Cement (Common and Special)

Lehigh Portland Cement Co.

Lone Star Cement Corp.

Universal Atlas Cement Co.

Cement (White)

Trinity White, General Portland Cement Co.

Universal Atlas Cement Co.

Clamps (Hose)

Dixon Valve & Coupling Co.

Compressors

Allis-Chalmers Co.

Ingersoll-Rand Co.

Jaeger Machine Co.

Concrete Curing Material

A. C. Horn Co.

Sisalkraft Co.

Concrete Machinery (Mobile)

Willard Concrete Machinery Sales Co.

Concrete Mixers, Pavers, Tampers

Chain Belt Co.

Construction Machinery Co.

Footo Co.

Jaeger Machine Co.

Knickerbocker Co.

Kochring Co.

Kwik-Mix Co.

T. L. Smith Co.

Worthington Pump & Machinery Corp.

Concrete Vibrators

Electric Tamper & Equipment Co.

Ingersoll-Rand Co.

White Mfg. Co.

Conveying Machinery

Barber-Greene Co.

Chain Belt Co.

Iowa Mfg. Co.

Link-Belt Co.

Cranes

Austin-Western Co.

Bucyrus-Erie Co.

Cleveland Trencher Co.

Clyde Iron Works

Harnischfeger Corp.

Kochring Co.

R. G. LeTourneau, Inc.

Link-Belt Speeder Corp.

Michigan Power Shovel Co.

Northwest Engineering Co.

Crushing Machinery

Allis-Chalmers Co.

Austin-Western Co.

Iowa Mfg. Co.

Culverts

Albert Pipe Supply Co.

Armco Drainage & Metal Products

Cutters (Abrasive)

Skilaw, Inc.

Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)

Fenestra Building Products

Macomber, Inc.

Derricks

Clyde Iron Works

Doors (Metal, Wood)

Ceco Steel Products Corp.

Fenestra Building Products

International Steel Co.

Kinnear Mfg. Co.

R. C. Mahon Co.

Truscon Steel Co.

Dredging Machinery

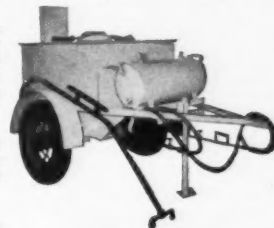
Bucyrus-Erie Co.

Harnischfeger Corp.

Northwest Engineering Co.

White Heating Kettles Have Fire-Proof Tops

Cut-back and highly inflammable road repair material can be heated safely in White kettles. FIRE-PROOF top reduces fire hazard.



White asphalt and tar kettles are extensively used. They give long life and satisfaction.

Plain kettles or with hand or engine driven spray pumps for patching pavement. Thermometer, barrel hoist, warming hood extra. All oil burning. Semi-elliptic springs, pneumatic tires.

65, 110, 165, 220, 300 gallon capacities.

Model F-10 is oil jacketed, to heat elastic joint filler.

Other Products

CONCRETE VIBRATORS

Gasoline Engine and Electric Motor Driven Models

ASPHALT PLANTS

Portable—Stationary

FRONT END LOADERS

for Industrial Tractors

KEROSENE TORCHES

3 to 20 gal. capacities

Write for Circulars

Elkhart White Mfg. Co. Indiana

It's Safer and Faster with a HOIST-MASTER ...

MANY NEW and IMPROVED FEATURES

SAVE TIME
SAVE LABOR
SAVE MONEY

NINE MODELS

400 to 1500 lbs. Lifting Capacity. Line Speed 150 to 450 ft. per minute.



WRITE TODAY
FOR NEW
1951
CATALOG

SMITH'S HOIST & MFG. CO.
CASSOPOLIS 1 MICHIGAN

ADVERTISERS' PRODUCTS

Drills & Drilling Machinery

Bucyrus-Erie Co.
Ingersoll-Rand Co.
Timken Roller Bearing Co.

Drills (Electric)

Skilsaw, Inc.
Wodack Electric Tool Corp.

Elevators (Material)

American Tubular Elevator Co.
Chain Belt Co.
Iowa Mfg. Co.
Link-Belt Co.
Smith's Hoist & Mfg. Co.

Engines

Allis-Chalmers Tractor Div.
American Hoist & Derrick Co.
Caterpillar Tractor Co.
Continental Motors Corp.
Cummins Engine Co.
Detroit Diesel Engine Division
Harnischfeger Corp.
Ingersoll-Rand Co.
International Harvester Co.
Wisconsin Motor Corp.

Expansion Joints

Laclede Steel Co.

Fasteners (For Steel, Concrete)

Ramset Fasteners, Inc.

Financing

C.I.T. Corp.

Finishing Machines (Bituminous)

Barber-Greene Co.
Blaw-Knox Division

Finishing Machines (Concrete)

Blaw-Knox Division

Floor Construction

Smooth Ceilings System

Floor Covering

Coleman Floor Co.

Flooring

Fenestra Building Products
Kerlow Steel Flooring Co.
Truscon Steel Co.

Forms (Concrete) and Accessories

Baker-Ross, Inc.
Blaw-Knox Division
Economy Forms Corp.
Heltzel Steel Form & Iron Co.
A. C. Horn Co.
Irvington Form & Tank Corp.
Richmond Screw Anchor Co.
Joseph T. Ryerson & Son, Inc.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Williams Form Engineering Corp.

Generating Sets (Electric)

Caterpillar Tractor Co.

Graders

J. D. Adams Mfg. Co.
Allis-Chalmers Tractor Div.
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
Koehring Co.
W. A. Riddell Corp.

Gravel Plants (Portable)

Iowa Mfg. Co.

Grinders (Electric)

Wodack Electric Tool Corp.

Hammers (Electric)

Wodack Electric Tool Corp.

Hoists

American Hoist & Derrick Co.
Clyde Iron Works
Construction Machinery Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Jaeger Machine Co.
McKiernan-Terry Corp.

Hose (Air, Water, Steam, Suction)

United States Rubber Co.

Industrial Financing

C.I.T. Corp.

Insurance (Automobile, Casualty,

Compensation, Liability)

Aetna Casualty & Surety Co.

Central Surety & Insurance

Corp.

Employers Mutuals of Wausau

Joists (Steel)

Ceco Steel Products Corp.

Macomber, Inc.

Kettles, Heating (Asphalt & Tar)

White Mfg. Co.

Linoleum

Coleman Floor Co.

Loaders (Portable)

J. D. Adams Mfg. Co.

Barber-Greene Co.

Link-Belt Co.

Lubricants

Lubriplate Division

Menders (Hose)

Dixon Valve & Coupling Co.
Ingersoll-Rand Co.

Mixers (Truck)

Blaw-Knox Division
Chain Belt Co.
Jaeger Machine Co.

Mixing Plants

Blaw-Knox Division
Chain Belt Co.
Jaeger Machine Co.
C. S. Johnson Co.

Mortar (Masonry)

Lehigh Portland Cement Co.

Nipples (Hose)

Dixon Valve & Coupling Co.

Partitions (Steel, Load-Bearing)

Fenestra Building Products
Macomber, Inc.

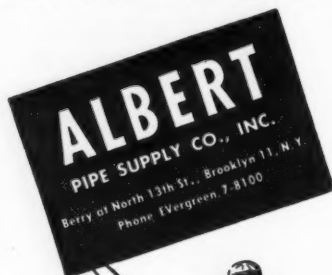
Pile Drivers

American Hoist & Derrick Co.
Austin-Western Co.
Bucyrus-Erie Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
Link-Belt Co.
McKiernan-Terry Corp.
Northwest Engineering Co.

Piling (Steel)

Albert Pipe Supply Co.
Allied Structural Steel Cos.
American Bridge Co.
Armco Drainage & Metal Products
Bethlehem Steel Co.

SAVINGS FLOW FROM *SPEED-LAY* PIPE SYSTEM EVERYTHING for a COMPLETE PORTABLE PIPE SYSTEM



**DELIVERED
READY FOR INSTALLATION**

**FACTORY PACKAGED
PIPE — COUPLINGS
FITTINGS — VALVES
ACCESSORIES
LIGHTWEIGHT, SAVES LABOR
FAST, SIMPLE**

Immediate Installation
by one unskilled man. 2 1/2
to 12 1/2 e.d. black or galvanized.
Larger sizes can be
furnished. Ready to lay—
without delay.

SEND COUPON NOW!

ALBERT PIPE SUPPLY CO., INC.
Berry & N. 13th St., Brooklyn 11, N. Y.

Please send free booklet describing
your Speed-Lay Pipe System and
services:

NAME.....
FIRM NAME.....
ADDRESS.....
CITY.....STATE.....

dewater the Complete way

Stay out of the wet and you
stay out of the red! Get "Com-
plete"—the equipment, the ex-
perience and the personnel
that prove superiority by com-
plete dewatering when other
ways fail!

Write today for "Complete" catalog Dept. CO

COMPLETE MACHINERY & EQUIPMENT COMPANY, INC.

36-40 11th STREET
LONG ISLAND CITY, N. Y.

Branch Warehouse
3rd AVE. & ADAMS ST.
GARY, INDIANA



L. B. Foster Co.
Union Metal Manufacturing Co.

Pipe
Albert Pipe Supply Co.
Armco Drainage & Metal Products

L. B. Foster Co.
Laclede Steel Co.

Pumps (Contractors')
Barnes Mfg. Co.
C.H.E. Mfg. Co.
Carver Pump Co.
Chain Belt Co.
Complete Machinery & Equipment Co.

Construction Machinery Co.
Gorman-Rupp Co.
Griffin Wellpoint Corp.
Ingersoll-Rand Co.
Jaeger Machine Co.
Leyman Mfg. Corp.
Marlow Pumps
Novo Engine Co.
Rice Pump & Machine Co.
Sterling Machinery Corp.
Worthington Pump & Machinery Corp.

Pumps (Jetting)
Complete Machinery & Equipment Co.
Griffin Wellpoint Corp.

Quantity Surveyors
H. A. Sloane Associates

Quarry Plants
Austin-Western Co.
Iowa Mfg. Co.

Rail
L. B. Foster Co.
Railway Equipment & Track Material
L. B. Foster Co.
Wisconsin Motor Corp.

Reinforced Concrete
Smooth Ceilings System

Reinforcement Accessories
Baker-Ross, Inc.
Economy Forms Corp.
Richmond Screw Anchor Co.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.
Williams Form Engineering Corp.

Reinforcing Steel and Mesh
American Bridge Co.
Bethlehem Steel Co.
Ceco Steel Products Corp.
Laclede Steel Co.
Joseph T. Ryerson & Son, Inc.
Truscon Steel Co.

Rollers
Austin-Western Co.
Blaw-Knox Division
Bucyrus-Erie Co.
Buffalo-Springfield Roller Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
R. G. LeTourneau, Inc.
W. A. Riddell Corp.

Roof Deck (Steel)
Allied Structural Steel Cos.
Ceco Steel Products Corp.
Fenestra Building Products
Irvington Form & Tank Corp.

R. C. Mahon Co.
Truscon Steel Co.
Rope (Wire)
American Hoist & Derrick Co.
L. B. Foster Co.
A. Leschen & Sons Rope Co.
R. G. LeTourneau, Inc.
Joseph T. Ryerson & Son, Inc.

Sanders (Belt, Disc)
Skilsaw, Inc.

Sash (Metal, Wood)
Fenestra Building Products
Hope's Windows, Inc.
Truscon Steel Co.

Saws (Chain & Portable)
Skilsaw, Inc.

Scaffolding (Sectional Steel, Tubular Steel)
Universal Manufacturing Corp.

Scarifiers
J. D. Adams Mfg. Co.
Austin-Western Co.

Scrapers
Austin-Western Co.
Bucyrus-Erie Co.
Caterpillar Tractor Co.
Galion Iron Works & Mfg. Co.
R. G. LeTourneau, Inc.
W. A. Riddell Corp.

Screens (Sand, Gravel & Coal)
Iowa Mfg. Co.
Link-Belt Co.

Shores
Baker-Ross, Inc.
Symons Clamp & Mfg. Co.

Shovels (Power)
American Hoist & Derrick Co.
Austin-Western Co.
Bucyrus-Erie Co.
Harnischfeger Corp.
Koehring Co.
Link-Belt Speeder Corp.
Michigan Power Shovel Co.
Northwest Engineering Co.

Shutters (Fire, Labeled)
Kinnear Mfg. Co.
R. C. Mahon Co.

Slings (Wire Rope)
American Hoist & Derrick Co.
A. Leschen & Sons Rope Co.

Spreaders (Bituminous Surface)
Galion Iron Works & Mfg. Co.

Stabilizing Equipment
Harnischfeger Corp.
Iowa Mfg. Co.

Steel (Structural)
Allied Structural Steel Cos.
American Bridge Co.
Bethlehem Steel Co.
Fenestra Building Products
International Steel Co.
Macomber, Inc.
Joseph T. Ryerson & Son, Inc.
Smooth Ceilings System
Truscon Steel Co.

Surety Bonds
Aetna Casualty & Surety Co.
Central Surety & Insurance Corp.
Employers Mutuals of Wausau
Fidelity & Deposit Co.

SLOANE QUANTITY SURVEYS

For

All Classes of Construction

We Maintain a Large Staff
of Engineers Which Assures
Speed—Accuracy—Full Detail
Reasonable Prefixed
Charges

Approved by
Associated General Contractors of
America and Federal, State and
Municipal Authorities

Your Inquiry Will Receive Prompt
Attention and Sample Estimates

H. A. Sloane Associates

Established 1922

415 Lexington Avenue
New York 17, N. Y.

SURVEYS VALUATIONS
APPRAISALS



THE INDUSTRY'S MOST VERSATILE

- Picks itself up • Easily extends
- Lifting heights up to 94 feet
- Single or Double Drum Hoists
- Platform speed—100 ft. per min.
- Lifting capacity—2,500 lbs.

Optional Equipment: Gin Pole Assembly, "Chicago" Boom, Tip-Over Bucket, Truck Mounting, Interchangeable 10' Extensions.

CONSTRUCTION MACHINERY COMPANIES
WATERLOO, IOWA



IT'S TOUGH

PABCO MASTIPAVE

FLOOR COVERING

CAN TAKE A BEATING

Under the impact of heavy traffic, from hobnailed shoes to iron-wheeled trucks, Pabco Mastipave remains "alive" and "new." Dents, scratches and punctures heal themselves . . . For long wear and complete satisfaction demand this resilient, cohesive floor covering.

Serving the Nation

COLEMAN FLOOR COMPANY

936 N. MICHIGAN AVENUE, CHICAGO

LOS ANGELES



ST. LOUIS



ADVERTISERS' PRODUCTS

Tile (Asphalt, Rubber, Cork)
Coleman Floor Co.

Tires
General Tire & Rubber Co.
Goodyear Tire & Rubber Co.
United States Rubber Co.

Tools (Pneumatic, Electric)
Allis-Chalmers Co.
Ingersoll-Rand Co.

Tools (Powder-Actuated)
Ramset Fasteners, Inc.

Torches (Kerosene)
White Mfg. Co.

Track Rollers
Craig Carroll Co.

Tractors
Allis-Chalmers Tractor Div.
Caterpillar Tractor Co.
International Harvester Co.
Oliver Corp., Industrial Div.

Trailers (Dump & Crawler Wheel)
Euclid Road Machinery Co.
R. G. LeTourneau, Inc.

Trailers (Heavy Equipment)
Rogers Bros. Corp.

Trenchers
Barber-Greene Co.
Cleveland Trencher Co.
Harnischfeger Corp.
Michigan Power Shovel Co.
Parsons Co.

Trestles (Adjustable Steel)
Universal Manufacturing Corp.

Truck Axles
Eaton Mfg. Co., Axle Division

Trucks (Motor)
Euclid Road Machinery Co.
International Harvester Co.
Mack Trucks, Inc.

Trusses (Steel)
Macomber, Inc.

Tunnel Liner Plates
Armco Drainage & Metal Products

Valves (Air-Self-Honing)
Irrington Form & Tank Corp.

Valves (Air-Self-Honing)
Dixon Valve & Coupling Co.

Wagons (Dump)
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
R. G. LeTourneau, Inc.

Walls
Fenestra Building Products
R. C. Mahon Co.

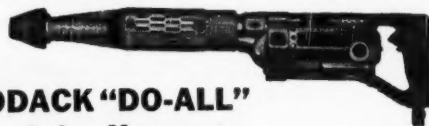
Washing Plants
Austin-Western Co.

Washing Plants
Iowa Mfg. Co.
Link-Belt Co.

Wellpoint Systems
Complete Machinery & Equipment Co.

Wellpoint Systems
Griffin Wellpoint Corp.

Winches
Clyde Iron Works



WODACK "DO-ALL" Electric Hammer

A score of tools in one

You use the adaptable De-all for many jobs. It drills concrete, brick or stone. 3400 hard blows per min. Takes 20 sizes star drills ($\frac{1}{8}$ " to $1\frac{1}{2}$ ") in 5 lengths up to 24". Also tools for chipping, routing, channeling, calking, vibrating, etc. De-tech hammer (1 min.) and De-all is ready for metal drilling (up to $\frac{1}{2}$ "), wood drilling (up to $\frac{1}{2}$ "), grinding, buffing, etc.

Saves time and labor

You will speed your work with De-all. Drills a $\frac{1}{2}$ " hole in ordinary concrete 1" deep in 15 seconds (or less). Easy to operate: only 15 lbs. Runs from lamp socket or generator.

GET THE FULL FACTS TODAY
WRITE FOR BULLETIN 443-C

Wodack Electric Tool Corp.
4627 W. Huron St., Chicago 44, Ill.

NOW...You can Choose The RIGHT Masonry Drill Bit for EACH Job

By using this handy Guide

New England Carbide Choose the RIGHT bit with this **MASONRY DRILL BIT Guide**

Locate material and hole size — There you will find the bit we recommend.

MATERIAL	HOLE DIAMETER											
	$\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	1 1/8"	1 1/2"	1 3/4"	2"
GROUP I. SOFT OR MEDIUM												
ADAMANT												
ASPHALT												
BRICK (soft to medium)												
CARBON												
CEMENT												
CERAMIC												
CHINA BLOCK												
CONCRETE (light to medium)												
GLASS												
IRON PIPE												
LEAD												
MARBLE												
MICROFILM												
PLASTER												
PLASTIC												
SLATE												
TERRAZZO												
TILE (hard)												
WALLBOARD												
GROUP II. HARD												
BRICK (hard)												
CONCRETE (heavy)												
STONE												

NEW — FREE
Send for your copy

Easy to use. Practical. Locate material you want to drill and hole size. There you will find bit recommended. Our complete line of masonry drill bits (Cyclo-twist, Cyclo-Core and Thunderbolt) will drill ANY size hole in ANY masonry material.

New England Carbide TOOL CO., INC.
60 BROOKLINE STREET, CAMBRIDGE 39, MASS.

RENT STEEL PILING

"FASTER FROM FOSTER"

ALL LENGTHS AND ALL SECTIONS TO MEET ALL YOUR JOB NEEDS

Foster's very low rental rates on all standard piling sections give you a low fixed expense as an added advantage when you bid on jobs. Pile Hammers and Pile Extractors for RENTAL.

Send for Piling Reference Chart CP-15

LB FOSTER CO.

RAILS - PIPE
TRACK ACCESSORIES
WIRE ROPE
STEEL PLATE

Pittsburgh 30, Pa.
New York 7, N.Y.
Chicago 4, Ill.
Houston 2, Tex.

MANUFACTURERS LISTED IN GUIDE

J. D. Adams Mfg. Co. Indianapolis 6, Ind.	Cleveland Trencher Co. 90100 St. Clair Ave. Cleveland 17, Ohio
Aetna Casualty & Surety Co. Hartford 15, Conn.	Clyde Iron Works Duluth 1, Minn.
Albert Pipe Supply Co. Berry & N. 13th St. Brooklyn 11, N. Y.	Coleman Floor Co. 936 N. Michigan Ave. Chicago 11, Ill.
Allied Structural Steel Cos. 20 N. Wacker Drive Chicago 6, Ill.	Complete Machinery & Equipment Co. 36-40 11th St. Long Island City 1, N. Y.
Allis-Chalmers Co. Milwaukee 1, Wis.	Construction Machinery Co. Waterloo, Iowa
American Bridge Co. Frick Bldg. Pittsburgh, Pa.	Continental Motors Corp. Muskegon, Mich.
American Hoist & Derrick Co. St. Paul 1, Minn.	Cummins Engine Co. Columbus, Ind.
American Tubular Elevator Co. 800 North St. Zelienople, Pa.	Detroit Diesel Engine Division, General Motors Corp. Detroit 28, Mich.
Armco Drainage & Metal Products, Inc. 2250 Curtis St. Middletown, Ohio	Dixen Valve & Coupling Co. Columbia & Hancock Sts. Philadelphia 22, Pa.
Austin-Western Co. Aurora, Ill.	Eaton Mfg. Co., Axle Division 739 E. 140th St. Cleveland 10, Ohio
Baker-Ross, Inc. 602 W. McCarty St. Indianapolis 6, Ind.	Economy Forms Corp. 4301 E. 14th St. Des Moines 13, Iowa
Barber-Greene Co. Aurora, Ill.	Electric Tapper & Equipment Co. Ludington, Mich.
Barnes Mfg. Co. 603 N. Main St. Mansfield, Ohio	Employers Mutuals of Wausau Wausau, Wis.
Bethlehem Steel Co. Bethlehem, Pa.	Euclid Road Machinery Co. Cleveland 17, Ohio
Blow-Knox Division 2060 Farmers Bank Bldg. Pittsburgh 22, Pa.	Fenestra Building Products 2253 E. Grand Blvd. Detroit 11, Mich.
Bucyrus-Erie Co. South Milwaukee, Wis.	Fidelity & Deposit Co. Fidelity Bldg. Baltimore 3, Md.
Buffalo-Springfield Roller Co. Springfield, Ohio	Foots Co. 1914 State St. Nunda, N. Y.
C. H. & E. Mfg. Co. 3842 N. Palmer St. Milwaukee 12, Wis.	L. B. Foster Co. Pittsburgh 30, Pa.
C.I.T. Corp. 1 Park Ave. New York 16, N. Y.	Galion Iron Works & Mfg. Co. Galion, Ohio
Craig Carroll Co. 1704 S.E. 22d Ave. Portland 15, Oreg.	General Tire & Rubber Co. Akron, Ohio
Carver Pump Co. Muscatine, Iowa	Goodyear Tire & Rubber Co. Akron 10, Ohio
Caterpillar Tractor Co. Peoria 8, Ill.	Gorman-Rupp Co. Mansfield, Ohio
Ceco Steel Products Corp. 5601 W. 26th St. Chicago 50, Ill.	Great Lakes Carbon Corp. Building Products Division 18 E. 48th St. New York 17, N. Y.
Central Surety & Insurance Corp. 1737 McGee St. Kansas City, Mo.	Griffin Wellpoint Corp. 881 E. 141st St. New York 54, N. Y.
Chain Belt Co. 1625 W. Bruce St. Milwaukee 4, Wis.	

INDEX OF ADVERTISERS

A.G.C. Forms and Reports	65
Albert Pipe Supply Co.	76
Allied Structural Steel Companies	20
Allis-Chalmers Tractor Division	6
Armco Drainage & Metal Products, Inc.	63
Austin-Western Co.	49
Baker-Ross, Inc.	57
Barber-Greene Co.	18
Blow-Knox Division	34,35
Bucyrus-Erie Co.	Cover 4
C.I.T. Corp.	4
Carroll, Craig, Co.	23
Caterpillar Tractor Co.	36
Ceco Steel Products Corp.	50
Central Surety and Insurance Corp.	74
Coleman Floor Co.	78
Complete Machinery & Equipment Co.	76
Construction Machinery Companies	77
Detroit Diesel Engine Division	8
Dixen Valve & Coupling Co.	71
Eaton Manufacturing Co., Axle Division	Cover 2
Euclid Road Machinery Co., The	Cover 3
Fenestra Building Products	58,59
Foster, L. B., Co.	78
Galion Iron Works & Mfg. Co., The	16
General Tire & Rubber Co., The	24
Goodyear Tire & Rubber Co.	1
Gorman-Rupp Co., The	62
Great Lakes Carbon Corp.	72
Griffin Wellpoint Corp.	56
Harnischfeger Corp.	60
Hope's Windows, Inc.	73
Horn, A. C., Co.	53
Ingersoll-Rand Co.	46
International Harvester Co.	40,41
Iowa Manufacturing Co.	44,45
Irrington Form & Tank Corp.	71
Jackson Vibrators, Inc.	14
Johnson, C. S., Co.	12,13
Koehring Co.	13
Laclede Steel Co.	70
LeTourneau, R. G., Inc.	52,53
Lone Star Cement Corp.	2
Mack Trucks	32
Macomber, Inc.	39
New England Carbide Tool Co.	78
Northwest Engineering Co.	10
Owen Bucket Co.	56
Parsons Co.	13
Richmond Screw Anchor Co.	42
Riddell, W. A., Corp.	66
Rogers Brothers Corp.	64
Sisalkraft Co., The	69
Sloane, H. A., Associates	77
Smith's Hoist & Mfg. Co.	75
Trinity Division, General Portland Cement Co.	67
Truscon Steel Co.	30
Wellman Engineering Co.	68
White Manufacturing Co.	75
Williams Form Engineering Corp.	80
Wodack Electric Tool Corp.	78

MANUFACTURERS LISTED IN GUIDE

Harnischfeger Corp.
4418 W. National Ave.
Milwaukee 14, Wis.

Heltzel Steel Form & Iron Co.
Warren, Ohio

Hope's Windows, Inc.
Jamestown, N. Y.

A. C. Horn Co.
10th St. & 44th Ave.
Long Island City 1, N. Y.

Ingersoll-Rand Co.
11 Broadway
New York 4, N. Y.

International Harvester Co.
180 N. Michigan Ave.
Chicago 1, Ill.

International Steel Co.
1715 Edgar St.
Evansville 7, Ind.

Iowa Mfg. Co.
Cedar Rapids, Iowa

Irvington Form & Tank Corp.
Irvington, N. Y.

Jaeger Machine Co.
528 Dublin Ave.
Columbus 16, Ohio

C. S. Johnson Co.
Champaign, Ill.

Kerlow Steel Flooring Co.
35 Mallory Ave.
Jersey City, N. J.

Kinnear Mfg. Co.
650-680 Fields Ave.
Columbus 16, Ohio

Knickerbocker Co.
Jackson, Mich.

Koshing Co.
3026 W. Concordia Ave.
Milwaukee 10, Wis.

Kwik-Mix Co.
Port Washington, Wis.

Laclede Steel Co.
Arcade Bldg.
St. Louis 1, Mo.

Lehigh Portland Cement Co.
Allentown, Pa.

A. Leschen & Sons Rope Co.
5909 Kennerly Ave.
St. Louis 12, Mo.

R. G. LeTourneau, Inc.
Peoria 5, Ill.

Leyman Mfg. Corp.
Cincinnati 2, Ohio

Link-Belt Speeder Corp.
1201 Sixth St., S.W.
Cedar Rapids, Iowa

Lone Star Cement Corp.
100 Park Ave.
New York 17, N. Y.

Lubriplate Division
Fisk Brothers Refining Co.
Newark 5, N. J.

Mack Trucks, Inc.
Empire State Bldg.
New York 1, N. Y.

Macomber, Inc.
Canton 1, Ohio

R. C. Mahon Co.
Detroit 34, Mich.

Marlow Pumps
Ridgewood, N. J.

McKiernan-Terry Corp.
18 Park Row
New York 38, N. Y.

Michigan Power Shovel Co.
485 Second St.
Benton Harbor, Mich.

New England Carbide Tool Co.
60 Brookline St.
Cambridge 39, Mass.

Northwest Engineering Co.
Field Bldg., 135 S. LaSalle St.
Chicago 3, Ill.

Navo Engine Co.
212 Porter St.
Lansing 5, Mich.

Oliver Corp., Industrial Division
19300 Euclid Ave.
Cleveland 17, Ohio

Owen Bucket Co.
7750 Breakwater Ave.
Cleveland 2, Ohio

Parsons Co.
Newton, Iowa

Ramsei Fasteners, Inc.
12117 Berea Road
Cleveland 11, Ohio

Rice Pump & Machine Co.
Grafton, Wis.

Richmond Screw Anchor Co.
816 Liberty Ave.
Brooklyn 8, N. Y.

W. A. Riddell Corp.
Bucyrus, Ohio

Rogers Bros. Corp.
223 Orchard St.
Albion, Pa.

Joseph T. Ryerson & Son, Inc.
P.O. Box 8000-A
Chicago 80, Ill.

Siskraft Co.
205 W. Wacker Drive
Chicago 6, Ill.

Skilaw, Inc.
5038 Elston Ave.
Chicago 30, Ill.

H. A. Sloane Associates
415 Lexington Ave.
New York 17, N. Y.

T. L. Smith Co.
2853 N. 32d St.
Milwaukee 10, Wis.

Smith's Hoist & Mfg. Co.
Cassopolis 1, Mich.

Smooth Ceilings System
802 Metropolitan Life Bldg.
Minneapolis 1, Minn.

Sterling Machinery Corp.
1950 Santa Fe Ave.
Los Angeles 21, Calif.

Symons Clamp & Mfg. Co.
4259 W. Diversey Ave.
Chicago 39, Ill.

Timken Roller Bearing Co.
Canton 6, Ohio

Trinity White, General Portland Cement Co.
111 W. Monroe St.
Chicago 3, Ill.

Truscon Steel Co.
Youngstown 1, Ohio

Union Metal Manufacturing Co.
Canton 5, Ohio

United States Rubber Co.
Rockefeller Center
New York 20, N. Y.

Universal Atlas Cement Co.
100 Park Ave.
New York 17, N. Y.

Universal Form Clamp Co.
1238 N. Klomp
Chicago 51, Ill.

Universal Manufacturing Corp.
400 North St.
Zelienople, Pa.

Wellman Engineering Co.
7015 Central Ave.
Cleveland 4, Ohio

White Mfg. Co.
Elkhart, Ind.

Willard Concrete Machinery Sales Co.
2906 Imperial Highway
Lynwood, Calif.

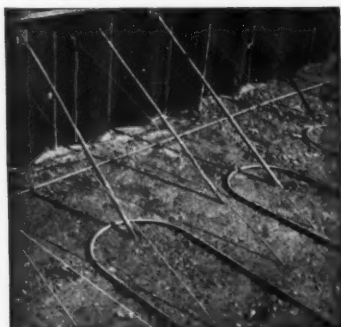
Williams Form Engineering Corp.
Box 925, Madison Square Sta.
Grand Rapids 7, Mich.

Wisconsin Motor Corp.
Milwaukee 46, Wis.

Wodack Electric Tool Corp.
4027 W. Huron St.
Chicago 44, Ill.

Worthington Pump & Machinery Corp.
Holyoke, Mass.

Worthington Pump & Machinery Corp.—Constr. Equip. Div.
Dunellen, N. J.



Williams Form Tie Rods and Pipe Spreaders in place, supporting forms for concrete pour.

CONCRETE FORM HARDWARE

Williams—

"Vibra-Lock" Form Clamps

"Super-Hi" Strength Tie Rods, Pig-tailed Anchors and Couplings

"Anchor Grip" Form Aligners

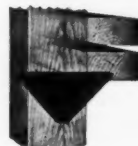
"Non-Slip" Waler Supports

For complete information write for our catalogue
"Form Engineering #1600"

WILLIAMS FORM ENGINEERING CORP.

Box 925 Madison Square Station

Grand Rapids 7, Mich.



Waler supports.



High Tensile Tie-Rod Couplings.

"EUC" PERFORMANCE *Pays Off*

**MORE LOADS
at LESS COST**

Rear-Dump and Bottom-Dump "Eucs" are designed and built for moving earth and heavy excavation at the lowest cost per ton or yard on the toughest jobs. The simple but rugged construction of Euclids, combined with large capacity, ample power and speed, provide efficient off-the-highway hauling of any material.

Leading contractors and industrial users have standardized on Euclids. Owners know that Euclid staying power and continuous operation result in dependable and profitable performance... jobs done on or ahead of schedule.

Ask your Euclid Distributor for data on jobs similar to yours. There is a "Euc" to meet your requirements for off-the-highway work.



Bottom-Dump Euclids—Capacities of 13 to 50 cu. yds.,
20 to 40 tons, diesel engines to 300 h.p.

Rear-Dump "Eucs"—Capacities 10 to 34 tons, diesel
engines from 125 to 400 h.p., spring mounted or semi-
rigid axles, top speed loaded up to 35.7 m.p.h.

**MORE LOADS PER HOUR—
MORE PROFIT PER LOAD**

The EUCLID ROAD MACHINERY Co., Cleveland 17, Ohio

EUCLIDS



BIG CAPACITY... SMALL MACHINE SPEED

LOOK at the big construction jobs in any section of the country and you'll see fast, large-capacity Bucyrus-Eries setting steel, driving piling and tackling many other heavy-duty chores. They're the choice of profit-smart contractors who know that large machine capacity and small machine speed are among the features which help finish their contracts with time to spare.

This combination of capacity and speed is just one of the many extra values resulting from individual design. Each of the seven machines in the Bucyrus-Erie $\frac{3}{8}$ - to 4-yard line is designed, from cat treads to boom point, as an entirely separate model . . . with just the right power, strength, and weight to do the best job in its work bracket.

All the facts on this versatile line of convertible excavators are available at your Bucyrus-Erie distributor's — call or see him **now** for detailed information.

209E51C

*Most Compared
Most Preferred*

● Unloading and placing pre-cast columns for an outer wall of City Park Garage in Los Angeles, California, is the assignment of this 38-B crane.



**BUCYRUS
ERIE**



SOUTH MILWAUKEE, WISCONSIN